Progress Report

Austin/Round Rock MSA

Early Action Compact

Prepared on behalf of the Austin/Round Rock MSA Clean Air Coalition by:
The Early Action Compact Task Force and the CLEAN AIR Force

Submitted to:
Texas Commission on Environmental Quality
U. S Environmental Protection Agency, Region VI

Period Ending December 31, 2003
Early Action Compact Progress Report
December 31, 2003

This progress report fulfills the Early Action Compact (EAC) December 31, 2003 reporting requirement, as specified in the US Environmental Protection Agency (EPA) *Protocol for Early Action Compacts Designed to Achieve and Maintain the 8-Hour Ozone Standard* and subsequent memorandum *Early Action Comapcts (EACs): The June 16, 2003 Submission and Other Clarifications.*

As required, Tables 1 and 2 of this progress report contain:

- A list of control measures still under consideration for adoption by the local area as part of the March 2004 submission;
- Likely implementation dates for local control measures under consideration;
- Current assessment of the emissions reductions expected through implementation of the local control measures; and
- The anticipated geographical application area for each control measure.

The emission reduction measures listed in Tables 1 and 2 summarize EAC activities to date. Table 1 measures are those currently being considered for implementation by state regulation or other state action. Table 2 measures are those local jurisdictions have committed to; they include both EAC and O_3 Flex commitments.

The appendices document the development of Tables 1 and 2 and associated EAC activities as follows.

- Appendix A – a description of recommended emission reduction measures based on technical information, input from stakeholders and the public involvement process.
- Appendix B – a summary of decisions by signatory jurisdictions.
- Appendix C – an update on stakeholder involvement and public outreach.
- Appendix D – an update of modeling and technical work.

Table 1 –Recommended CAAP Measures Requiring State Regulations or Actions

Emission Reduction Measures (State Regulations)		Where Applied	Affected Parties	Implementation Date	Cost per ton	NOx Reductions (tpd)	VOC Reductions (tpd)
A1	Inspection and Maintenance (I&M)	Travis, Hays and Williamson	Inspection stations & gasoline vehicle owners	No later than Dec. 31, 2005	$16,500	3.19	4.19
A2	Idling Restrictions on Heavy-Duty Diesels	MSA*	Owners/operators heavy duty diesel vehicles	No later than Dec. 31, 2005	N/A	0.28	0
A3	Commute Emission Reduction Program	MSA	Major employers, employees	No later than Dec. 31, 2005	TBD	0.54	0.60
A4	Commercial Lawn and Garden Low Emission Gas Cans	MSA	Lawn and Garden Industry	No later than Dec. 31, 2005	$368	0	0.63
A5	Stage I Vapor Recovery Requirement Change	MSA*	Some gasoline retailers	No later than Dec. 31, 2005	$861	0	3.82
A6	Low Emission Gas Cans (Residential)	MSA*	Purchasers of gas cans	No later than Dec. 31, 2005	$1,899	0	1.97
A7	Architectural/Industrial Coatings Controls	MSA	manufacturers/ end users	No later than Dec. 31, 2005	$6,380	0	1.60
A8	Degreasing Controls	MSA	Facility owner/operators	No later than Dec. 31, 2005	<$3,060>	0	6.28
A9	Autobody Refinishing Controls	MSA	Facility owner/operators	No later than Dec. 31, 2005	$1,260	0	0.28
A10	Cut Back Asphalt	MSA	TxDOT, County, City and some pavers	No later than Dec. 31, 2005	TBD	0	TBD
A11	Low Reid Vapor Gas	MSA*	Purchasers of gasoline	No later than Dec. 31, 2005	$10,180	0	2.94
A12	Oil and Gas Compressors	MSA*	Oil & Gas Industry	No later than Dec. 31, 2005	TBD	TBD	TBD
A13	BACT and Offsets for New or Modified Point Sources	MSA	Point source operators	No later than Dec. 31, 2005	TBD	TBD	TBD
A14	Petroleum Dry Cleaning	MSA	Facility owner/operators	No later than Dec. 31, 2005	$7,118	0	1.06
A15	Texas Emission Reduction Program (TERP)	MSA	Diesel equipment and vehicle owners/operators	Phased beginning no later than Dec 31, 2005	$13,000 max	TBD	TBD
A16	Power Plant Reductions	MSA	Austin Energy, LCRA, UT	Phased beginning no later than Dec 31, 2005	TBD	TBD	TBD
	Total (Does not include TBD)					**4.01**	**23.37**

*The Austin/Round Rock MSA is encouraging TCEQ to expand implementation of these emission reduction measures to the eastern half of the state. This will address MSA concerns about intrastate transport, high ozone background levels and practicality of implementation.

Table 2 – Local Jurisdiction EAC and O3 Flex Emission Reduction Measures

Emission Reduction Measure	City of Austin	Travis County	City of Round Rock	Williamson County	City of San Marcos	Hays County	City of Bastrop	City of Elgin	Bastrop County	City of Lockhart	City of Luling	Caldwell County
Texas Emission Reduction Program (TERP)	E	E		E		E						
Texas Low Emission Diesel (TxLED) for Fleets	E	E		E								
Transportation Emission Reduction Measures (TERMs)	O, E+	O, E+	O, E+	O, E+	O, E+		E	E				
Access Management							E	E		E		
Alternative Commute Infrastructure Requirements	E						E	E				
Drive-Through Facilities on Ozone Action Days	E									E		
Expedited permitting for mixed use, transit oriented or in-fill development							E	E				
Airport Clean Air Plan, includes:	O											
• Use of electric or alternative fuels for airport GSE	O, E											
• ABIA Airside Incentives for GSE use reduction	O, E											
• Integrate alternative fuels into City's aviation fleet	O, E											
• Operate alternative fueled ABIA surface parking lot shuttle buses	O, E											
• Use existing ABIA alternative fuel infrastructure for off-site parking shuttle buses	O, E											
Low VOC Striping Material	O, E	O	O	O		O	E	E		O, E		
Landfill Controls												
Open Burning Restrictions			E				E	E				
Tree Planting	O, E	O	O	O, E+	O	E	E	E		O, E		
Extend energy efficiency requirements beyond SB5 and SB7	E											
Shift the electric load profile	E											
Environmental dispatch of power plants	E											
Clean Fuel Incentives												

Emission Reduction Measure	City of Austin	Travis County	City of Round Rock	Williamson County	City of San Marcos	Hays County	City of Bastrop	City of Elgin	Bastrop County	City of Lockhart	City of Luling	Caldwell County
Low Emission Vehicles	O, E	O	O	O						O, E		O
Adopt-a-School-Bus Program										E		
Police Department Ticketing										E		
EPA Smart Way Transport Program												
Business Evaluation of Fleet Useage, Including Operations and Right Sizing	E	E		E								
Parking Incentives for Alt Fuel or SULEV vehicles												
Commute Solutions Programs, may include	O, E									E		
Compressed Work Week	O, E	O	O						O		O	
Flexible Work Schedule	O, E	O	O									
Carpool or Alternative Transportation Incentives	O, E											
Transit Pass Subsidized by Employer	O, E											
Teleworking (full time)	O, E											
Teleworking (part time)	O, E		O									
Direct Deposit	O, E	O	O	O	O	O, E+	E		O	E		O
e-Government and/or Available Locations	O, E	O	E	O, E+	O	O, E+						
Voluntary use of APUs for locomotives operating in Central Texas												
Fueling of Vehicles in the Evening	O, E	O	O	O		O, E+			O	O, E	O	O
Urban Heat Island/Cool Cities Program	E											
Resource Conservation	O, E+	O	O	O	O	O, E+					O	
Increase investments by Central Texas electric utility providers in energy demand management programs	E											
Alter production processes and fuel choices												
Contract provisions addressing construction related emissions on high ozone days	E											
Ensure emission reductions in SEPs, BEPs and similar agreements							E	E		E		
Ozone Action Day Education Program, includes:	O, E	O	O	O	O	O, E+	O, E	O, E	O	O, E	O	O
Employee Education Program	O	O	O	O	O	O	O	O	O	O	O	O
Public Education Program	O	O	O	O	O	O	O	O	O	O	O	O
Ozone Action Day Notification Program	O	O	O	O	O	O	O	O	O	O	O	O
Ozone Action Day Response Program	O, E	E	O	E		E						O

Emission Reduction Measure	City of Austin	Travis County	City of Round Rock	Williamson County	City of San Marcos	Hays County	City of Bastrop	City of Elgin	Bastrop County	City of Lockhart	City of Luling	Caldwell County
Alternative Fuel Vehicles	O	O	O									
Right Sizing	O	O	O									
5-minute Limit on Diesel Idling	O		O	O						O	O	O
Cleaner Diesel	O	O	O	O		O	O	O	O			
Vehicle Maintenance	O	O	O	O	O	O			O			O
Vapor Recovery on Pumps			O									O
Low VOC Asphalt		O	O	O								
Low-Emission Gas Cans	O		O	O		O	O	O		O	O	
Transit-Oriented Development	O											
Shaded Parking	O	O										
Landscaping voluntary start at noon on high ozone days (education program)										E		

O= O_3 Flex commitment

E = EAC commitment

E+ = increased EAC commitment from original O_3 Flex commitment

O, E = jurisdiction confirmed O_3 Flex commitment when selecting Table 2 measures

The geographic area of the Table 2 commitments is the area covered by the jurisdiction making the commitment.

O_3 Flex measures have generally already been implemented, although the TERMs include phased implementation dates through 2007.

EAC measures will generally be implemented no later than December 31, 2005, although the TERMs include phased implementation dates through 2007. TERP projects may also have phased implementation dates. Many Table 2 EAC measures may be implemented by ozone season 2004.

Estimated emission reductions from Table 2 measures are 1 tpd NOx and 1 tpd VOC.

EAC Progress Report December 31, 2003

APPENDIX A

DRAFT CLEAN AIR ACTION PLAN (CAAP)
RECOMMENDED EMISSION REDUCTION MEASURES

December 11, 2003

INTRODUCTION

This document lists emission reduction measures recommended by the Early Action Compact Task Force (EACTF) for inclusion in the Austin/Round Rock MSA Clean Air Action Plan (CAAP). While some measures apply to multiple counties, others vary by jurisdiction. During the stakeholder process these measures came to the forefront. They are effective in other nonattainment areas and local models show them to reduce emissions cost effectively.

The measures form two categories, summarized in separate tables. (Appendices A and B provide measure details.) Table 1 covers measures recommended as requirements in all MSA counties (except where noted) and implemented by state rule. Table 2 contains measures recommended for implementation by local regulation, agreement or voluntary arrangement. Jurisdictions may select from Table 2 the measures that will complete their "fair share" obligation to emission reductions. Non-signatory jurisdictions, public sector agencies and businesses may also participate in the Table 2 measures.

The MSA now has in place, or has planned for, several measures not included in the baseline emissions inventory (1999). The CAAP intends to account for these anticipated reductions. Implementation requires no additional planning or funding. The measures include:

- The March 2002 O_3 Flex Agreement, implemented throughout the MSA, with estimated NOx reductions of 6.7 tpd and VOC reductions of 2.3 tpd;
- The early introduction (May 2003) and continued use of Ultra Low Sulfur Gasoline throughout the MSA;
- The ALCOA Agreement, expected to reduce their NOx emissions 90% by 2007; and
- State and federal measures, such as Tier 2 fuel and vehicle emissions standards, scheduled to come on line during the implementation period.

TO SUBMIT COMMENTS:

- **E-mail at www.cleanairforce.org (click on Clean Air Action Plan Public Involvement)**
- **By fax to the Clean Air Force at 512-916-6038**
- **By mail to Clean Air Force, 2512 S IH35, Suite 200, Austin, TX 78704**
- **By phone 343-SMOG or 1-866-916-4AIR**

FOR MORE INFORMATION

Go to www.cleanairforce.org or call the phone numbers listed above

Table 1 –Recommended CAAP Measures Requiring State Regulations or Actions

Emission Reduction Measures (State Regulations)		Where Applied	Affected Parties	Total Annual Costs	Cost per ton	NOx Reductions (tpd)	VOC Reductions (tpd)
A1	Inspection and Maintenance (I&M)	Travis, Hays and Williamson	Inspection stations & gasoline vehicle owners	$31,608,000	$16,500	3.19	4.19
A2	Idling Restrictions on Heavy-Duty Diesels	MSA*	Owners/operators heavy duty diesel vehicles	N/A	N/A	0.28	0
A3	Commute Emission Reduction Program	MSA	Major employers, employees	TBD	TBD	0.54	0.60
A4	~~Commercial Lawn and Garden Permitting~~	~~MSA~~	~~Lawn and Garden Industry~~	~~TBD~~	~~TBD~~	~~0.21~~	~~0~~
	Commercial Lawn and Garden Low Emission Gas Cans	MSA	Lawn and Garden Industry	$84,777	$368	0	0.63
A5	Stage I Vapor Recovery Requirement Change	MSA*	Some gasoline retailers	$1,199,668	$861	0	3.82
A6	Low Emission Gas Cans (Residential)	MSA*	Purchasers of gas cans	$1,363,890	$1,899	0	1.97
A7	Architectural/Industrial Coatings Controls	MSA	manufacturers/ end users	$2,654,080	$6,380	0	1.60
A8	Degreasing Controls	MSA	Facility owner/operators	Savings TBD	<$3,060>	0	6.28
A9	Autobody Refinishing Controls	MSA	Facility owner/operators	$91,728	$1,260	0	0.28
A10	Cut Back Asphalt	MSA	TxDOT, County, City and some pavers	TBD	TBD	0	TBD
A11	Low Reid Vapor Gas	MSA*	Purchasers of gasoline	$5,385,000	$10,180	0	2.94
A12	Oil and Gas Compressors	MSA*	Oil & Gas Industry	TBD	TBD	TBD	TBD
A13	BACT and Offsets for New or Modified Point Sources	MSA	Point source operators	TBD	TBD	TBD	TBD
A14	Petroleum Dry Cleaning	MSA	Facility owner/operators	$1,961,720	$7,118	0	1.06
Emission Reduction Measures (State and Local Actions)		**Where Applied**	**Affected Parties**	**Total Annual Costs**	**Cost per ton**	**NOx Reductions** (tpd)	**VOC Reductions** (tpd)
A15	Texas Emission Reduction Program (TERP)	MSA	Diesel equipment and vehicle owners/operators	TBD	$13,000 max	TBD	TBD
A16	Power Plant Reductions	MSA	Austin Energy, LCRA, UT	TBD	TBD	TBD	TBD
	Total (Does not include TBD)			**$44,348,863**		**4.01**	**23.37**

*The Austin/Round Rock MSA is encouraging TCEQ to expand implementation of these emission reduction measures to the eastern half of the state. This will address MSA concerns about intrastate transport, high ozone background levels and practicality of implementation.

Table 2 –Recommended CAAP Measures
Requiring Local Regulations or Agreements and Including Voluntary Measures*

Emission Reduction Measure		Implementation Method			Reduces NOx	Reduces VOC	Effectiveness Rating		
		Regulation	Agreement	Voluntary			Low	Med.	High
B1	Texas Emission Reduction Program (TERP)			X	X				X
B2	Texas Low Emission Diesel (TxLED) for Fleets		X	X	X				X
B3	Transportation Emission Reduction Measures (TERMs)		X	X	X	X		X	
B4	Access Management	X	X		X	X		X	
B5	Alternative Commute Infrastructure Requirements	X	X		X	X		X	
B6	Drive-Through Facilities on Ozone Action Days	X	X	X	X	X	X		
B7	Expedited permitting for mixed use, transit oriented or in-fill development.	X	X		X	X		X	
B8	Use of electric or alternative fuels for airport GSE		X	X	X			X	
B9	ABIA Airside incentives for GSE use reduction		X	X	X	X			X
B10	Integrate alternative fuels into City's aviation fleet			X	X	X		X	
B11	Operate alternative fueled ABIA surface parking lot shuttle buses			X	X	X		X	
B12	Use existing ABIA alternative fuel infrastructure for off-site parking shuttle buses		X	X	X	X		X	
B13	Low VOC Striping Material	X				X		X	
B14	Landfill Controls	X				X	X		
B15	Open Burning Restrictions	X			X	X	X		
B16	Tree Planting	X		X	X		X		
B17	Extend energy efficiency requirements beyond SB5 and SB7.	X			X		X		
B18	Shift the electric load profile		X	X	X		X		
B19	Environmental dispatch of power plants		X	X	X		X		

Emission Reduction Measure		Implementation Method			Reduces NOx	Reduces VOC	Effectiveness Rating		
		Regulation	Agreement	Voluntary			Low	Med.	High
B20	Clean Fuel Incentives			X	X	X		X	
B21	Low Emission Vehicles			X	X	X			X
B22	Adopt-a-School-Bus Program			X	X	X			X
B23	Police Department Ticketing			X	X	X		X	
B24	EPA Smart Way Transport Program			X	X	X	X		
B25	Business Evaluation of Fleet Usage, Including Operations and Right Sizing			X	X	X	X		
B26	Parking Incentives for Alt Fuel or SULEV vehicles			X	X	X	X		
B27	Commute Solutions Programs			X	X	X	X		
B28	Direct Deposit			X	X	X	X		
B29	e-Government and/or Available Locations			X	X	X	X		
B30	Voluntary use of APUs for locomotives operating in Central Texas		X	X	X			X	
B31	Fueling of Vehicles in Evening			X		X	X		
B32	Urban Heat Island/Cool Cities Program	X	X	X	X	X		X	
B33	Resource Conservation	X		X	X	X			X
B34	Increase investments by Central Texas electric utility providers in energy demand management programs		X	X	X				X
B35	Alter production processes and fuel choices		X	X	X			X	
B36	Contract provisions addressing construction related emissions on high ozone days		X		X	X		X	
B37	Ensure emission reductions in SEPs, BEPS and similar agreements		X		X	X		X	
B38	Ozone Action Day Education Program			X	X	X		X	
B39	Ozone Action Day Response Program			X	X	X			X

*Signatory jurisdictions should select Table 2 measures that are in addition to those included in their O_3 Flex Agreement commitment.

APPENDIX A

Description of Emission Reduction Measures in Table 1

A1. Inspection and Maintenance (I&M)

DESCRIPTION: Require vehicle emission testing and repair for all subject gasoline vehicles 2 to 24 years old and registered in Hays, Travis or Williamson counties. Tests will be conducted at all safety inspection stations. Failed vehicles have 15 days to repair the vehicle at any repair facility and get a free retest. The emission test for model year 1996 and newer vehicles will be the On-Board Diagnostic test. The emission test for model year 1995 and older vehicles will be the two speed idle test. Remote sensing will be used to identify high emitters in Hays, Travis, Williamson and contiguous counties. Identified vehicles will be required to show passing emission test results in order to renew vehicle registration. Vehicles used by students at public universities in the 3 counties but registered elsewhere will be required to participate in the program in order to receive parking privileges. A Low Income Repair Assistance Program (LIRAP) will be included.

IMPLEMENTATION: Preferably state rule with program implemented by TCEQ and DPS**.**

- **REGIONAL COSTS:** TBD Program is designed to keep emissions test fees lower than those in DFW and Houston ($27.00 fee +12.50 safety inspection)

EXPECTED POLLUTION REDUCTIONS: Estimated 3.19 tpd NOx and 4.19 tpd VOC

A2. Idling Restrictions on Heavy-Duty Diesels

DESCRIPTION: State law to restrict idling of gasoline and diesel-powered engines in heavy-duty motor vehicles greater than 8500 gross vehicle weight to five consecutive minutes when the vehicle is not in motion, with certain exceptions. Applies during ozone season only. Enforceability may be problematic, but emission reductions could be significant.

IMPLEMENTATION: Preferably state rule, developed by TCEQ, applicable in all five counties.
*EACTF has suggested TCEQ consider implementing the measure in the eastern half of the state

REGIONAL COSTS: No monetary costs expected

EXPECTED POLLUTION REDUCTIONS: Estimated 0.28 tpd NOx

A3. Commute Emission Reduction Program

DESCRIPTION: Require every existing or future employer with 100 or more employees per location to implement a commute emission reduction program that will reduce commute emission equivalent by 10%. Awards could be provided for those who exceed requirements. A similar voluntary program called Clean Air Partners is underway. In addition, the existing Commute Solutions Program provides tools and support for program implementation.

IMPLEMENTATION: Preferably state rule, developed by TCEQ, applicable in all five counties.

REGIONAL COSTS: TBD

EXPECTED POLLUTION REDUCTIONS: Estimated 0.54 tpd NOx and 0.60 tpd VOC

A4. Commercial Lawn and Garden Permitting

DESCRIPTION: This control measure is the industry-desired alternative to previously proposed control measures. Commercial Lawn and Garden firms will be required to submit an emissions reduction plan documenting 20% or greater emissions reduction from the default emissions inventory for their equipment. TCEQ has the necessary software and emissions factors to perform these calculations. Emissions reductions associated with alternative fueled vehicles will be accepted as a reduction against their emissions inventory. An approved emissions reduction plan results in the company being "permitted" to operate in the Central Texas area.

This measure affects about 1,000 companies in the area. For purposes of compliance, applicability (operations >$5,000/year) will be patterned after and compared to the existing Lawn and Garden Service Tax. Decals (permit) will be affixed to each piece of permitted equipment. Companies will be encouraged to begin the equipment upgrading now to achieve immediate emissions reductions. Actual permitting begins in 2005, giving industry a chance to spread cost of compliance over several years.

IMPLEMENTATION: Preferably state rule, developed by TCEQ, applicable in all five counties.

REGIONAL COSTS: Preliminary cost estimates assume the industry would get these reductions by purchasing low emission gas cans. This assumes each business would spend about $115 on these cans, for a total of $84,780. Further refinement of these cost estimates is expected.

EXPECTED POLLUTION REDUCTIONS: In 2007, the industry is projected to create about 1.07 tpd of NOx. This measure is expected to reduce 20%, or 0.21 tpd, of those NOx emissions.

A5. Stage I Vapor Recovery Requirement Change

DESCRIPTION: Stage I vapor recover is already in place in the Austin region for service stations that pump over 125,000 gallons of fuel per month. This measure would require Stage I on service stations pumping 25,000 gallons per month, thus increasing the number of service stations using the system. Stage I reduces VOC emissions during fuel transfer from the tanker truck to the underground storage tank through a special vapor recovery system.

IMPLEMENTATION: Preferably state rule, developed by TCEQ, applicable in all five counties.
*EACTF has recommended that TCEQ implement the measure in the eastern half of the state for all service stations pumping 50,000 gallons/month or more.

REGIONAL COSTS: $1,199,668 per year assuming participation in all five counties.

EXPECTED POLLUTION REDUCTIONS: 3.82 tpd VOC reductions assuming participation in all five counties.

A6. Low Emission Gas Cans

DESCRIPTION: Mandate that all new gas containers purchased in the region meet spill-proof, low emission standards.

IMPLEMENTATION: Preferably state rule, developed by TCEQ, applicable in all five counties.
*EACTF has recommended that TCEQ implement the measure in the eastern half of the state.

REGIONAL COSTS: The incremental cost of these cans is approximately $11.00. Further evaluation of the total regional costs is needed, although costs have been prepared for the lawn and garden industry only (see Lawn and Garden Permitting measure).

EXPECTED POLLUTION REDUCTIONS: Initial estimates for only the Lawn and Garden industry are 1.97 TPD VOC reductions. Regional implementation will provide additional reductions.

A7. Architectural and Industrial Coatings Controls

DESCRIPTION: Adopt state rule for Architectural and Industrial Surface Coatings. This regulates the use of certain surface coatings (e.g., paints) applied by industry, contractors and homeowners to coat houses, buildings, highway surfaces and industrial equipment. Because users of these coatings are small and widespread, requiring the use of add-on control devices is technically and economically infeasible. Reductions in VOC emissions must therefore be obtained through product reformulation.

IMPLEMENTATION: Request that TCEQ adopt state rule for the Austin/Round Rock MSA.

REGIONAL COSTS: $2,654,080/yr

EXPECTED POLLUTION REDUCTIONS: 1.60 tons VOC per day

A8. Degreasing Controls

DESCRIPTION: Degreasing operations are a common source of VOC emissions. Degreasing uses a solvent to remove grease, oil, or dirt from the surface of a part prior to surface coating or welding. In cold cleaning, the part is dipped into or sprayed with solvent. Sources that commonly have cold cleaning degreasers include auto repair shops, autobody shops, and industries. Lower VOC content results in cost savings. TCEQ rules that already apply address housekeeping measures.

IMPLEMENTATION: Request that TCEQ extend state rule to include the Austin/Round Rock MSA.

REGIONAL COSTS: Savings TBD

EXPECTED POLLUTION REDUCTIONS: 6.28 tons of VOC per day

A9. Autobody Refinishing Controls

DESCRIPTION: Adopt Autobody Refinishing Control standards to reduce VOC emissions from this source by 45%. Rule requires lowering the VOC content of the products used, improving the application technique so that less coating is used and controlling the use of clean-up solvents (proper handling of gun cleaning and clean-up solvents). Emissions occur at all three process stages (surface preparation, painting and equipment cleaning) due to evaporation of solvents in the primers, paints and other coatings, and in the cleaning solutions.

IMPLEMENTATION: Preferably state rule, developed by TCEQ, applicable in all five counties.

REGIONAL COSTS: $91,728/yr

EXPECTED POLLUTION REDUCTIONS: 0.28 tons of VOC per day

A10. Cut Back Asphalt

DESCRIPTION: This measure prohibits the sale/transport of "conventional cut-back asphalt" in the Austin/Round Rock MSA. Conventional cut-back asphalt releases VOC for over a year after application. Also, encourage the use of low-emission emulsion asphalt and hot-mix asphalt by reducing VOC upper limit in the definition of "Exempt Cut-back Asphalt" as lower emission asphalt becomes available.

IMPLEMENTATION: Preferably state rule, developed by TCEQ, applicable in all five counties.

REGIONAL COSTS: TBD

EXPECTED POLLUTION REDUCTIONS: TBD

A11. Low Reid Vapor Gasoline

DESCRIPTION: Would lower the Reid vapor pressure requirement from 7.8 to 7.0 in the MSA during ozone season (daylight savings time), significantly reducing locally generated VOC.

IMPLEMENTATION: Preferably state rule, developed by TCEQ, applicable in all 5 counties.

REGIONAL COSTS: $5.4 million/year.

EXPECTED POLLUTION REDUCTIONS: 2.94 tpd VOC reductions in the MSA assuming 180 day ozone season fuel use.

A12. Oil and Gas Compressors

DESCRIPTION: Require installation of air-fuel ratio controller and three-way catalysts on small (<500hp) rich burn oil and gas well compressors that are currently uncontrolled by state rules.

IMPLEMENTATION. Preferably state rule, applicable in all five counties.

REGIONAL COSTS: TBD

EXPECTED POLLUTION REDUCTIONS: TBD

A13. Point Source Controls

DESCRIPTION: Require Best Available Control Technology (BACT) and 1:1 offsets for all new or modified point sources that emit 100 tons per year or more.

IMPLEMENTATION: Preferably state rule, developed by TCEQ, applicable in all five counties

REGIONAL COSTS: TBD

EXPECTED POLLUTION REDUCTIONS: TBD

A14. Petroleum Dry Cleaning Systems

DESCRIPTION: Adopt the Texas state rule for Petroleum Dry Cleaning Systems used in DFW and Houston. This regulates the operation of a dry cleaning facility by complying with dryer, filtration system, and fugitive emission requirements. An 85% reduction in VOC emissions will be obtained through these emissions controls.

IMPLEMENTATION: Request that TCEQ extend state rule to Austin/Round Rock MSA.

REGIONAL COSTS: $1,961,729 per year

EXPECTED POLLUTION REDUCTIONS: 1.06 tons of VOC per day

A15. Texas Emission Reduction Program (TERP)

DESCRIPTION: A state funded grant program to reduce diesel emissions and encourage technological innovations. Available grants cover the incremental cost of cleaner diesel on-road and off-road engines and equipment, cleaner fuel needed for the equipment and clean fuel infrastructure. The eligibility threshold is $13,000 per ton of NOx reduced.

IMPLEMENTATION: Local vehicle and equipment owners apply for TERP funding, TCEQ selects projects and awards funding

REGIONAL COSTS: TBD, eligible projects must meet maximum $13,000 per ton NOx reduced

EXPECTED POLLUTION REDUCTIONS: TBD

A16. Power Plant Reductions

DESCRIPTION: Reduce NOx emissions from power plants as follows:

Austin Energy - AE would accept a cap of 1,500 tons per year on total NOx emissions from all of its units combined (Decker, Holly and Sand Hill). The cap would be in place at least through 2012. As AE brings new units online, additional NOx emission reductions at existing units would be made in order to comply with the cap. AE will achieve this cap through a combination of NOx reduction technologies at their existing plants, retirement of older generating units, increased utilization of renewable energy and energy efficiency.

LCRA - LCRA is considering taking a cap on the emissions from all of its plants in the 5-county area. The final level of this cap is yet to be defined, but would be no greater than current emissions. LCRA would likely follow the precedent it set at the Lost Pines Power Park and offset NOx emissions from any new power plant it built in the 5 counties. The Fayette Power Project (co-owned with Austin Energy) is covered by a flexible permit that requires interim NOx emission caps by 2005 and a final NOx cap by 2012.

The University of Texas at Austin - UT is proposing a 75% reduction in the allowable annual NOx emissions from its grandfathered units. The historical potential NOx emissions from these units is 1,388 tons per year. Under the current VERP application the University will limit NOx emissions from grandfathered units to 341 tons per year. The University will meet these reduced emissions levels by limiting operating hours on certain equipment and by installing 10-year BACT controls on other equipment. Controls are proposed to be added to Boiler #7 in 2004 and Boiler #3 in 2005. The University will continue to operate its permitted unit (Gas turbine/boiler #8) as usual; this unit has average NOx emissions of 394 tons per year.

IMPLEMENTATION: Agreed order (AE, LCRA) or permit (UT)

REGIONAL COSTS: TBD

EXPECTED POLLUTION REDUCTIONS: TBD

Appendix B
Description of Emission Reduction Measures in Table 2

B1. Texas Emission Reduction Program (TERP)

DESCRIPTION: Secure all available TERP incentives/grants for equipment and fuels in the five county area. Available incentives/grants cover the incremental cost of cleaner diesel on-road and off-road engines and equipment, cleaner fuel needed for the equipment and clean fuel infrastructure.

B2. Texas Low Emission Diesel (TxLED) for Fleets

DESCRIPTION: Purchase and use Texas Low Emission Diesel in on and non-road vehicles and equipment.

B3. Transportation Emission Reduction Measures (TERMs)

DESCRIPTION: Implement transportation projects and programs that reduce emissions. Projects and programs include improved transit options and level of service, intersection improvements, grade separations, signal synchronizations and/or improvements, peak and/or off-peak traffic flow improvements, park and ride facilities, bike/ped facilities, high occupancy vehicle lanes, rail, demand management, intelligent transportation systems etc. Many TERMS are already planned and funded. CAMPO has issued a call for projects that may provide funding for additional TERMS.

B4. Access Management

DESCRIPTION: Adopt access management regulations or guidelines for new or re-development. TxDOT has proposed guidance available. Access management includes managing roadway access by limiting the number and location of allowable curb cuts and driveways, consolidating access to multiple business through one main driveway, side road etc. Access management reduces congestion, vehicle delay and associated emissions.

B5. Alternative Commute Infrastructure Requirements

DESCRIPTION: Require all new non-residential developments of 25,000 sq. ft or more and developments that increase their square footage 25% or more and have/expect 100+ employees on the site to include bicycle commuting facilities (parking/racks and showers) and preferential carpool/vanpool parking spaces.

B6. Drive-Through Facilities on Ozone Action Days

DESCRIPTION: Require or encourage businesses with drive-through facilities to post signs on Ozone Action Days asking customers to park and come inside instead of using the drive-through facilities. Encourage the public to comply.

B7. Expedited permitting for mixed use, transit oriented or in-fill development.

DESCRIPTION: Provide an expedited permitting process and/or other incentives for mixed use, transit oriented or in-fill development. Developments would have to meet certain performance criteria in order to qualify for expedited permitting.

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B8. Use of electric or alternative fuels for airport GSE

DESCRIPTION: This category includes new and in-use ground support equipment (GSE) used in airport operations. GSE perform a variety of functions, including: starting aircraft, aircraft maintenance, aircraft fueling, transporting cargo to and from aircraft, loading cargo, transporting passengers to and from aircraft, baggage handling, lavatory service, and food service. The Air Transportation industry has informed Central Texas that they will oppose any requirements on their industry.

B9. ABIA Airside incentives for GSE use reduction

DESCRIPTION: ABIA has begun and will complete the addition of building supplied power and preconditioned air for all aircraft parked at the gate. This will eliminate the need to run on-board auxiliary power units (APUs), and air-conditioning (ACUs) and ground power units (GPUs) by the air carriers if they will participate. It is not clear if we can mandate their use, or if it will need to be on a voluntary basis. Implementation might require creating incentives or use restrictions. Estimated 0.16 tpd NOx reduction.

B10. Integrate alternative fuels into City's aviation fleet

DESCRIPTION: Begin replacement of Aviation Fleet equipment with propane fuel starting FY2003. Purchase of 10 propane pro-turf mowers, and 4 propane non-road truck-alls. Planned purchases at this time. Future replacement subject to budget provisions.

B11. Operate alternative fueled surface parking lot shuttle buses

DESCRIPTION: ABIA currently operates 29 propane buses for passenger service between the terminal and the parking lots. Averages 25,000 gallons of propane per month. Estimated 60% NOx reduction. Take credit for current operations.

B12. Use existing ABIA alternative fuel infrastructure for off-site parking shuttle buses

DESCRIPTION: Propane fueling infrastructure is available at ABIA that could be used to refuel off-site parking shuttle buses. Encourage or mandate these services to shift to propane by 2005. Estimated 60% NOx reduction.

B13. Low VOC Striping Material

DESCRIPTION: Require use of reformulated striping material products (I.e., water-based paints or thermoplastic) to achieve VOC reductions.

B14. Landfill Controls

DESCRIPTION: Adopt control strategy for municipal solid waste landfills based upon the EPA's New Source Performance Standard (NSPS) and Guidelines. A municipal solid waste landfill is a disposal facility in a contiguous geographical space where household waste is placed and periodically covered with inert material. Landfill gases are produced from the aerobic and anaerobic decomposition and chemical reactions of the refuse in the landfill. Landfill gases consist primarily of methane and carbon dioxide, with volatile organic compounds making up less than one percent of the total emissions. Although the percentage for VOC emissions seems small, the total volume of gases is large.

B15. Open Burning Restrictions

DESCRIPTION: Amend and/or adopt regulations to ban the open burning of such items as trees, shrubs, and brush from land clearing, trimmings from landscaping, and household or business trash, during the peak ozone season. It reduces VOCs and NOx.

B16. Tree Planting

DESCRIPTION: Implement landscaping ordinances to require additional urban tree planting. Reforestation improves air quality and energy efficiency

B17. Extend energy efficiency requirements beyond SB5 and SB7.

DESCRIPTION: Require additional energy efficiency measures beyond SB5 and SB7, such as building design, revisions to codes and standards, and energy management programs for large commercial facilities. Additional energy efficiency measures could provide significant reductions in energy demand and demand-related emissions.

B18. Shift the electric load profile

DESCRIPTION: Require commercial facilities to develop overnight the reservoir of cold water needed to meet air conditioning needs the following day. Total energy consumption and emissions are not reduced, but the emissions are not generated during the day, reducing the potential for ozone formation.

B19. Environmental dispatch of power plants

DESCRIPTION: To meet peak demands, this strategy would involve "ramping up" power generation facilities that are either cleaner than normally used or located away from high NOx-producing areas (e.g., plants in Bastrop and Marble Falls rather than the Decker or Holly Street plants in downtown Austin).

B20. Clean Fuel Incentives

DESCRIPTION: Encourage and/or provide incentives to implement fuels that are cleaner than conventional gasoline and diesel, including alternative fuels, lower sulfur gasoline and low sulfur diesel

B21. Low Emission Vehicles

DESCRIPTION: Encourage and/or provide incentives for the purchase and use of Tier 2 Bin 3 or cleaner vehicles for fleets and private use.

B22. Adopt-a-School-Bus Program

DESCRIPTION: Encourage local school districts to participate in this CLEAN AIR Force sponsored program to replace or retrofit old diesel school buses with new, cleaner buses. Replacements and retrofits are implemented using 50% corporate sponsorship funds and 50% school district funds. EPA provides seed money to the CLEAN AIR Force for a fundraiser and program administration.

B23. Police Department Ticketing

DESCRIPTION: Implement **a**ggressive police enforcement by local agencies of speed limits 55 mph or more and smoking vehicle restrictions. If the smoking vehicle is fixed within 60 days, the ticket could be waived.

B24. EPA Smart Way Transport Program

DESCRIPTION: EPA sponsored voluntary partnership with freight carriers and shippers to reduce fuel consumption and emissions through strategies such as idle reduction, improved aerodynamics, improved logistics management, automatic tire inflation systems, wide-base tires, driver training, low-viscosity lubricants, reduced highway speed and lightweight vehicle components. Participating carriers and shippers will meet voluntary performance goals and track progress. EPA will provide a calculation and tracking software tool and technical support. Several carriers and shippers have already signed up.

B25. Business Evaluation of Fleet Usage, Including Operations and Right Sizing

DESCRIPTION: Evaluate and improve the efficiency of fleet usage, including using alternative or clean fueled vehicles, using the cleanest vehicle appropriate for the job, consolidating and coordinating trips etc

B26. Parking Incentives for Alt Fuel or Low Emission vehicles

DESCRIPTION: Provide parking incentives for Tier2 Bin 3 or cleaner vehicles. These clean vehicles could be allowed to park for free at parking meters, have designated parking spaces. This would encourage the use of these cleaner vehicles.

B27. Commute Solutions Programs

DESCRIPTION: Encourage and provide tools to implement Commute VMT reduction programs (e.g. Teleworking, compressed work week, carpooling/vanpooling, bus fares, subsidized transit pass, flextime, carpool or alternative transportation incentives etc.). The Commute Solutions program provides information and tools to implement these programs. Could be used to support a commute emission reduction regulation.

B28. Direct Deposit

DESCRIPTION: Offer employees direct deposit potentially saving at least one vehicle errand per pay period.

B29. e-Government and/or Available Locations

DESCRIPTION: Provide web-based services, both for information and transactions, and/or multiple locations for payments, etc., Reduces VMT and associated emissions.

B30 Voluntary use of APUs for locomotives operating in Central Texas

DESCRIPTION: Controls for locomotives are pre-empted by Federal law, but voluntary controls might have some success, since using Auxiliary Power Units (APUs) also decreases fuel costs to the railroad companies. CSX has been considering the use of APUs to reduce fuel use.

B31. Fueling of Vehicles in Evening

DESCRIPTION: Promote fueling vehicles after peak hot periods of the day have passed during ozone season.

B32. Urban Heat Island/Cool Cities Program

DESCRIPTION: Develop and implement Urban Heat Island (UHI) mitigation strategies. Since ozone forms at higher temperatures, the purpose of this strategy is to keep the city as cool as possible, through vegetation, cool roofing and light colored pavement.

B33. Resource Conservation

DESCRIPTION: Expand and quantify ongoing resource conservation programs (materials recycling, water and energy conservation, etc.).

B34. Increase investments by Central Texas electric utility providers in energy demand management programs

DESCRIPTION: This measure would involve the development of energy demand management programs in areas outside the Austin Energy service area. Austin Energy offers financial incentives to commercial and residential customers for installation of energy efficient appliances and technologies and they report a good correlation between their demand programs and reduced emissions at their power plants. This measure would encourage other utility providers in the region to develop similar programs.

B35. Alter production processes and fuel choices

DESCRIPTION: This strategy involves exploring opportunities to improve efficiency, to make changes in certain combustion processes, and/or to alter fuel choices where cost-effective. Some point sources in the area (e.g., Austin White Lime) are using natural gas for cost reasons. Given their production processes, using natural gas results in higher NOx emissions than using coal. Representatives have expressed interest in examining their production process and/or revisiting their fuel choices, particularly during the ozone season. Other point sources such as LeHigh Cement are also looking at rescheduling and fuel changes to reduce NOx.

B36. Contract provisions addressing construction related emissions on high ozone days

DESCRIPTION: Public contracts may include provisions to limit construction activities and equipment operation on high ozone days. A specified number of these high ozone days would be built into the contract. While controversial, it is one of the only ways to target non-road construction emissions.

B37. Ensure emission reduction in SEPs, BEPS and similar agreements

DESCRIPTION: Ensure that the primary impact of all air quality related SEPs, BEPs or similar agreements applicable to the EAC area, is to reduce emissions and improve air quality. EPA and/or TCEQ would consult, to the extent possible, with the local EAC signatories when developing any air quality related environmental mitigation agreement, such as a SEP, BEP or other similar agreement.

B38. Ozone Action Day Education Program

DESCRIPTION: Implement a public ozone education program, including ozone action days and recommended actions.

B39. Ozone Action Day Response Program

DESCRIPTION: Implement a program of specific emission reduction measures taken on ozone action days.

EAC Progress Report December 31, 2003

APPENDIX B

Summary of Decisions by EAC Signatory Jurisdictions

The following eight Public Meetings were held throughout the MSA:

Travis County (November 12, 13, 15 and 17)	City of Austin (December 4)
Williamson County (November 20)	Caldwell County (November 24)
Hays County (November 19)	

To date, EAC signatories taken the following actions regarding inclusion of emission reduction measures in the Draft Clean Air Action Plan (CAAP):

Bastrop County – Scheduled for consideration on January 12, 2004

Caldwell County – Voted December 15, 2003 to approve Table 1 measures for inclusion in the CAAP, confirmed O3 Flex commitments and considered adding B15 open burning restrictions from Table 2.

Hays County – Voted unanimously December 23, 2003 to adopt Table 1 measures A1 through A16 as recommended by the Early Action Compact Task Force (EACTF) and the following Table 2 measures for inclusion in the CAAP.

B1 Texas Emission Reduction Program (TERP)
B16 Tree Planting
B28* Direct Deposit
B29* e-Government
B31* Fueling Vehicles in Evening
B33* Resource Conservation
B38* Ozone Action Day Education Program
B39 Ozone Action Day Response Program

** included in the O3 Flex Plan – efforts on these items would be expanded*

Travis County – Voted unanimously November 25, 2003 in favor of including all necessary regional measures from Table 1, highlighting the vehicle inspection & maintenance program and TERP, plus the following voluntary measures from Table 2:

B1 Texas Emissions Reduction Program
B2 Texas Low Emission Diesel for Fleets
B3* Transportation Emission Reduction Measures (TERMs)
B25 Business Evaluation of Fleet Usage, Including Operations and Right Sizing
B39 Ozone Action Day Response Program

** included in the O3 Flex Plan – efforts on these items would be expanded*

Williamson County – Voted unanimously December 16, 2003 in support of including Table 1 measures in the CAAP and the following Table 2 measures:

B1 Texas Emission Reduction Program (TERP)
B2 Texas Low Emission Diesel for Fleets
B3* Transportation Emission Reduction Measures (TERMs)
B16* Tree Planting
B25 Business Evaluation of Fleet Useage, Including Operations and Right Sizing
B29* E-Government and/or Available Locations
B39 Ozone Action Day Response Program

** included in the O3 Flex Plan – efforts on these items would be expanded*

City of Austin – Voted unanimously December 4, 2003 in favor of including all necessary measures from Table 1 and the following voluntary measures from Table 2 (several of these measures are confirmations of O3 Flex commitments):

B1 Texas Emission Reduction Program
B2 Texas Low Emission Diesel for Fleets
B3* Transportation Emission Reduction Measures
B5 Alternative Commute Infrastructure Requirements
B6 Drive-Through Facilities on Ozone Action Days
B8 Use of Electric or Alternative Fuels for Airport GSE
B9 ABIA Airside Incentives for GSE Use Reduction
B10 Integrate Alternative Fuels into the City's Aviation Fleet
B11 Operate Alternative Fueled ABIA Surface Parking Lot Shuttle Buses
B12 Use Existing ABIA Alternative Fuel Infrastructure for Off-Site Parking Shuttle Buses
B13 Low VOC Striping Material
B16 Tree Planting
B17 Extend Energy Efficiency Requirements beyond SB5 and SB7
B18 Shift the Electric Load Profile
B19 Environmental Dispatch of Power Plants
B21 Low Emission Vehicles
B25 Business Evaluation of Fleet Useage, Including Operations and Right Sizing
B27 Commute Solutions Programs
B28 Direct Deposit
B29 E-Government and/or Available Locations
B31 Fueling of Vehicles in the Evening
B32 Urban Heat Island/Cool Cities Program
B33* Resource Conservation
B34 Increase Investments by Central Texas Electric Utility Providers in Energy Demand Management Programs
B36 Contract Provisions Addressing Construction Related Emissions on High Ozone Days
B38 Ozone Action Day Education Program
B39 Ozone Action Day Response Program

** included in the O3 Flex Plan – efforts on these items would be expanded*

City of Bastrop – Voted on December 9, 2003 to endorse Table 1 measures except A4 Commercial Lawn and Garden Permitting (this measure has been removed from Table 1 per Clean Air Coalition vote on Dec 10). The City Council directed staff to implement the following Table 2 measures. The remainder of the Table 2 measures will be revisited during the budget cycle and periodically as we better understand how effective and involved these programs are in other jurisdictions.

B3 Transportation Emission Reduction Measures (TERMs)
B4 Access Management
B5 Alternative Commute Infrastructure Requirements
B7 Expedited Permitting for Mixed Use, Transit Oriented or In-Fill Development
B13 Low VOC Striping Material
B15 Open Burning Restrictions
B16 Tree Planting
B28 Direct Deposit
B37 Ensure Emission Reductions in SEPs, BEPs and Similar Agreements
B38 Ozone Action Day Education Program

City of Elgin – Voted December 16, 2003 to endorse Table 1 measures for inclusion in the CAAP and selected the following Table 2 measures:
B3 Transportation Emission Reduction Measures
B4 Access Management
B5 Alternative Commute Infrastructure Requirements
B7 Expedited Permitting for Mixed Use, Transit Oriented or In-Fill Development
B13 Low VOC Striping Material
B15 Open Burning Restrictions
B16 Tree Planting
B37 Ensure Emission Reductions in SEPs, BEPs and Similar Agreements
B38 Ozone Action Day Education Program

City of Lockhart - Voted December 16, 2003 in support of including Table 1 measures in the CAAP and committed to the following Table 2 measures:
B4 Access management
B6 Drive-Through Facilities on Ozone Action Days
B13 Low VOC Striping Material
B16 Tree Planting
B21 Low Emission Vehicles
B22 Adopt-a-School Bus Program
B23 Police Department Ticketing
B27 Commute Solutions Programs
B28 Direct Deposit
B31 Fueling of Vehicles in the Evening
B37 Ensure emission reductions in SEPs, BEPs and similar agreements
B38 Ozone Action Day Education Program
B40* Landscaping Voluntary Start at Noon on High Ozone Days
* *Denotes new voluntary measure to replace A4 commercial lawn and garden permitting measure*

City of Luling -

City of Round Rock – Voted unanimously December 18, 2003 to recommend to TCEQ that the Table 1 measures and the following Table 2 measures be included in the CAAP.
B3 Transportation Emission Reduction Measures (TERMs)
B15 Open Burning Restrictions
B29 E-Government and/or Available Locations

City of San Marcos – Scheduled for consideration on January 12, 2004

Most, if not all, of the EAC signatories plan to re-consider the Draft CAAP in its entirety in late January.

Note: O3 Flex commitments continue to apply. Some jurisdictions voted to confirm their O3 Flex commitments when selecting Table 2 measures, while others just selected Table 2 measures that were in addition to their O3 Flex commitments.

EAC Progress Report December 31, 2003

APPENDIX C

The four stakeholder workgroups (on-road, non-road, point and area sources) formed in January 2003 continued to meet during the June to December 2003 reporting period. The primary emphasis of the workgroups was to develop and refine recommended emission reduction strategies. Please see the June 30, 2003 EAC Progress Report for a list of stakeholder members.

In addition to the eight public meetings listed below, the CLEAN AIR Force implemented a communications plan that included speaking engagements, media messages and public opinion surveys. The CLEAN AIR Force also provided a venue for public comments using its website, toll-free phone line, fax and mail and served as a central collection point for public comments. Appendix C contains the communications plan, a list of speaking engagements and an analysis of the public opinion survey conducted in November 2003, as well as a summary of public comments received.

The following eight Public Meetings were held throughout the MSA:

Travis County (November 12, 13, 15 and 17)	City of Austin (December 4)
Williamson County (November 20)	Caldwell County (November 24)
Hays County (November 19)	

CLEAN AIR Force of Central Texas
Air Quality/EAC Public Outreach Efforts
January – November 2003

Communication Plan Highlights

a. Goal:
    i. To explain clearly and in understandable terms to target groups
        1. the threats to both health and economy that ozone pollution poses
        2. the control strategies being evaluated
        3. the process of evaluating different control strategies
        4. the various ways of getting involved in the CAAP
    ii. To respond to erroneous messages in an effective and timely manner
    iii. To encourage increased citizen/business participation in the Clean Air Action Plan process
    iv. To motivate the citizens of this region to take immediate actions to reduce air pollution

b. Clean Air Messages
    i. Maintain your vehicle
    ii. Mow and refuel after 6:00 p.m. and stop at the click
    iii. Drive less; combine errands
    iv. Don't idle
    v. Vanpool/Carpool/Ride the bus

c. Objectives for Upcoming Campaigns:
    i. To increase awareness of Ozone Action Day alerts
    ii. To increase awareness of the Clean Air Action Plan
    iii. To increase recognition that air quality can affect the pocketbooks/daily operations of businesses and citizens
    iv. To increase fall survey responses compared to the number received from spring survey

Earned Media

d. Television
    i. KXAN-36
    ii. KVUE-24
    iii. KEYE-42
    iv. News 8 Austin
    v. KTBC-7
    vi. Travis County Television (Ch. 17) Interview
    vii. UT TV

e. Radio
    i. 590 KLBJ AM
    ii. 90.5 KUT FM

f. Newspapers/Magazines
    i. Austin American-Statesman
    ii. The Chronicle
    iii. Williamson County Sun
    iv. San Marcos Daily Record

v. The Daily Texan
vi. Round Rock Leader
vii. Taylor Daily Press
viii. In Fact Daily
ix. Austin Business Journal
x. La Prensa
xi. The Bastrop Advertiser
xii. Good Life Magazine

II. Ozone Season Radio Spots ($12,500 with value adds worth $12, 650)

a. 405 Traffic Sponsorships - August 11 to September 14, 2003
   i. 94.7 KAMX FM (alternative) – 80 spots total
      1. Value add of $2,200 for matching PSA rotation
   ii. 100.7 KASE FM (country) – 85 spots total
      1. Value add of $2,500 for PSA rotation 10x a week
      2. Value add of $900 for Sunday a.m. 15 min. interview on community affairs show with Chuck Meyers
   iii. 107.1 KGSR FM (adult alternative) – 85 spots total
      1. Value add of $1,700 for :10 copy 10x a week
      2. Value add of $750 for news story opportunity
   iv. 107.7 KINV FM (tejano) – 65 spots total
      1. Value add of $800 for Sunday community affairs show interview
      2. Value add of $1,200 for PSA rotation 6x a week
   v. 590 KLBJ AM (news/talk) – 90 spots total
      1. Value add of $1,800 for :10 copy 10x a week
      2. Value add of $800 for news story opportunity
b. Market: Adults 25-54 / Reach 59.8% of market pop. / Frequency 6.5x

KXAN Ad Campaign for Fall Survey

c. Commercials
   i. $18,525 for 51 spots throughout 2 weeks: November 1-15, 2003
   ii. Market: Adults 25-54 / Reach 52% / Frequency 3.2x
   iii. 10 free spots added as PSA's
d. KXAN.com
   i. Banner rotated throughout KXAN.com for 2 weeks
   ii. Linked straight to Fall Survey

KVUE.com Campaign for Fall Survey

e. Banner on KVUE.com homepage and weather page
f. Link to survey included in email sent to KVUE's email distribution list (8,500)

III. Other Promotional Activities:

a. EAC t-shirts for booth volunteers and give-aways
b. Bus ads on 3 Capital Metro buses during ozone season
c. Drive Clean Across Texas/CLEAN AIR Force Inserts at Wells Fargos
d. EAC flyers in City of Austin utility bills (350,000 customers)
e. Received 1034 public involvement Spring survey cards
f. New email address to receive EAC public comments (CAAPcomments@capco.state.tx.us)
g. EAC Ads in AAS and Chronicle for 2 weeks
h. Ads in minority papers and outlying counties (w/ CapMetro)

i. DCAT/CLEAN AIR Force TV commercials
j. Received over 1800 Fall survey cards
k. Received 15 written comments on EAC

IV. CAF at Public Events (*in Austin unless noted)

- EAC Kick-off at ABIA (January 31)
- Austin House & Garden Show (2 events)
- Red Poppy Festival (Georgetown – April 26)
- Old Pecan Street Festival
- Austin Parks Fest/Earth Day
- Ozone Season Kick-off at Zilker Clubhouse (April 2)
- Earth Day Event at the Wildflower Center w/ Motorola (April 22)
- Texas Natural Festival (San Marcos)
- Chisholm Trail Round-up (Lockhart – June 14-15)
- Bastrop County Family Health Fair (Bastrop – June 6)
- Solectron Health Fair
- A.I.S.D./Clean Air Partners Press Conference (August 6)
- EAC 1st Milestone Press Conference (June 17)
- CAF/Flint Hills Press Conference (August 21)
- Blues on the Green (August 20)
- Commute Solutions Kickoff (October 3)
- CapMetro Hybrid Bus Press Conference (October 6)
- Austin Green Festival (October 11-12)
- CAR CARE FOR CLEAN AIR Day (October 25)
- Clean Cities (October 29)
- State Farm Car Event (November 13)

EAC Speaking Engagements

January – November 2003

SPEAKING ENGAGEMENTS	DATE	LOCATION (Citizens Attending)
Kick Off Event	Jan. 31	Austin Bergstrom Int'l. Airport (90)
Leadership Austin	Feb. 19	Austin (40)
Northeast Rotary	March	Austin (15)
Austin Energy	April	Austin (12)
Ozone Season Kickoff	April	Zilker Clubhouse (45)
Lockhart Kiwanis	April	Lockhart (22)
Austin City Council	April 24	Austin City Council (25)
COA Environmental Board Mtg.	May	Austin City Council (9)
Texas Natural & Swing Festival	May 17	San Marcos (200)
Regional Mobility Authority	May 28	Round Rock
COA Environmental Board Mtg.	June	Austin City Council (9)
Hyde Park Neighborhood Assoc.	June 2	Hyde Park, Austin (28)
San Marcos City Council Workshop	June 9	San Marcos City Council
Bastrop County Commissioners Court	June 9	Bastrop
CAMPO Board Meeting	June 9	Campo Board room
Chisholm Trail Roundup	June 14-15	Lockhart (500)
Bastrop City Council	June 24	Bastrop City Council
Mesa Park Neighborhood Assoc.	June 24	Covenant Church (7)
Downtown Austin Alliance	June 26	7th Street, Austin (15)
COA Environmental Board Mtg.	July	Austin City Council (9)
Alcoa Citizens Advisory Panel	July 30	Taylor
UT Government Class	Aug. 8	UT Campus (30)
Pflugerville City Council	Aug. 12	Pflugerville City Council
Austin Contractors & Engineers Association	Sept. 11	County Line BBQ (50)
Austin Neighborhood Ass.	Sep. 24	Austin
Air & Waste Management Ass.		Austin
COA Environmental Board Mtg.	Oct.	Austin City Council (9)
Texas Auto Industry Ass.	Oct. 21	Austin
Car Care for Clean Air event	Oct. 25	Highland Mall (150)
Caldwell County Commissioner Court	Oct. 27	Caldwell
Williamson County Commissioner Court	Oct. 28	Georgetown
Travis County Commissioner Court	Oct. 28	Austin
Clean Cities Advancing the Choice	Oct. 29	J.J. Pickle Research Campus (50)
Austin's City Council	Oct. 30	Austin City Council
COA Environmental Board Mtg.	Nov	Austin City Council
Hays County Commissioner Court	Nov. 4	San Marcos
Lockhart City Council	Nov. 4	Lockhart City Council
Bastrop County Commissioners Court	Nov. 10	Bastrop
San Marcos City Council	Nov. 10	San Marcos City Council
Bastrop City Council	Nov. 11	Bastrop City Council
Round Rock City Council	Nov. 13	Round Rock City Council
Travis County Public Mtg.	Nov. 12	Pflugerville Council Chamber (1)
Travis County Public Mtg.	Nov. 13	Pct. 3 Westside Service Center (2)
Northwest Kiwanis Group Mtg.	Nov. 13	Luby's at Steck Lane (22)
TERP Workshop	Nov. 14	TxDOT-Austin (80)

Travis County Public Mtg.	Nov. 15	Satellite 1 Office (2)
Travis County Public Mtg.	Nov. 17	Baty Elementary (10)
CAMPO Board Meeting	Nov. 17	CAMPO Board room
Hays County Public Mtg.	Nov. 19	Hays County Courthouse (1)
Northeast Austin Rotary	Nov. 20	7535 Hwy. 290 East (20)
Williamson County/Round Rock Public Mtg.	Nov. 20	Round Rock Library (10)
Caldwell County/Lockhart Public Mtg.	Nov. 24	Lockhart City Council
San Marcos City Council/Public Hearing	Nov. 24	San Marcos City Council
City of Austin's Resource Mang. Commission	Nov. 24	Austin City Council
Greater Austin Chamber of Commerce	Nov. 25	GACC Board Room (40)
City of Austin Public Hearing	Dec. 4	Austin City Council

The CLEAN AIR Force provided an opportunity for Central Texans to weigh in on the best mix of strategies for reducing air pollution caused by ozone through a short survey, administered by NuStats from November 1 through November 15, 2003. This survey constituted the second and final tool for collecting "opinion pulses" from Central Texans that would be considered in drafting the Early Action Compact Clean Air Action Plan. This memorandum transmits a summary of the survey's key findings. The survey assessed public opinions on a set of eight strategies (See Attachment A for a copy of the survey instrument). To encourage wide participation, a dual-mode survey design was applied: hard copy and electronic/Web-based. NuStats mailed hard copies of the survey to approximately 1500 residents who participated in the first round of public involvement,[1] and the CLEAN AIR Force surveys distributed surveys during presentations and at public events.

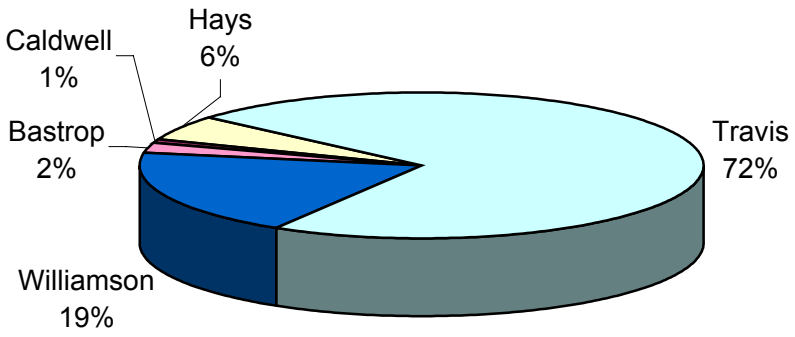
In total, approximately 3000 hard copies of the surveys were distributed. The CAF Public Involvement Subcommittee also secured widespread promotion of the on-line survey through several venues including radio and television PSAs, newspaper advertisements, and list serves. While nearly 2000 surveys were returned via mail or completed electronically, several surveys were not included in the final dataset because of incomplete data or respondents not in the study area (i.e., located in another state or country). As a result, this summary reflects the opinions of 1,916 citizens who "opted" to voice their opinions by completing the survey.

[1] This includes only those participants who provided complete address information on the first survey.

CLEAN AIR Force of Central Texas
EAC Public Involvement Survey
Summary of Key Findings

Citizens in each of the five counties participated in the survey, with most participants from Travis county.

Over two-thirds (69.3%) of participants reported residing in Travis county, followed by Williamson county (18.4%). The least number of participants was in Caldwell county (about 1 percent).



Attachment B contains maps demonstrating the distribution of participants by county and by zip code.
Attachment C contains a complete alphabetical listing of employers listed by participants.

While most participants found all the strategies acceptable to some degree, Central Texans are more likely to favor strategies that do not directly place requirements on them personally.

Given that most of the survey respondents represented the general public it is not surprising that when asked whether the measures are an acceptable ways of reducing air pollution, they were more likely to find those measures that place requirements on businesses and heavy duty vehicles as being more acceptable to measure that would affect them personally and directly.
This observation is supported by the following comments from a Williamson and Travis county participant, respectively:

"Emission issues should focus on industrial polluters and not individuals."

"Business changes need to occur before citizen changes. As shown by your numbers, regulating area and point sources will reduce NOx by 34% and VOC by 61%. These numbers almost equal if not exceed on-road numbers."

As shown in Table 1, participants selected "prohibit heavy duty vehicle idling" and "require gas stations to recover vapors" (1.6 respectively) as the strategies they considered to be the most acceptable approach for reducing air pollution.

TABLE 1:
LEVEL OF ACCEPTABILITY RANK SCORE

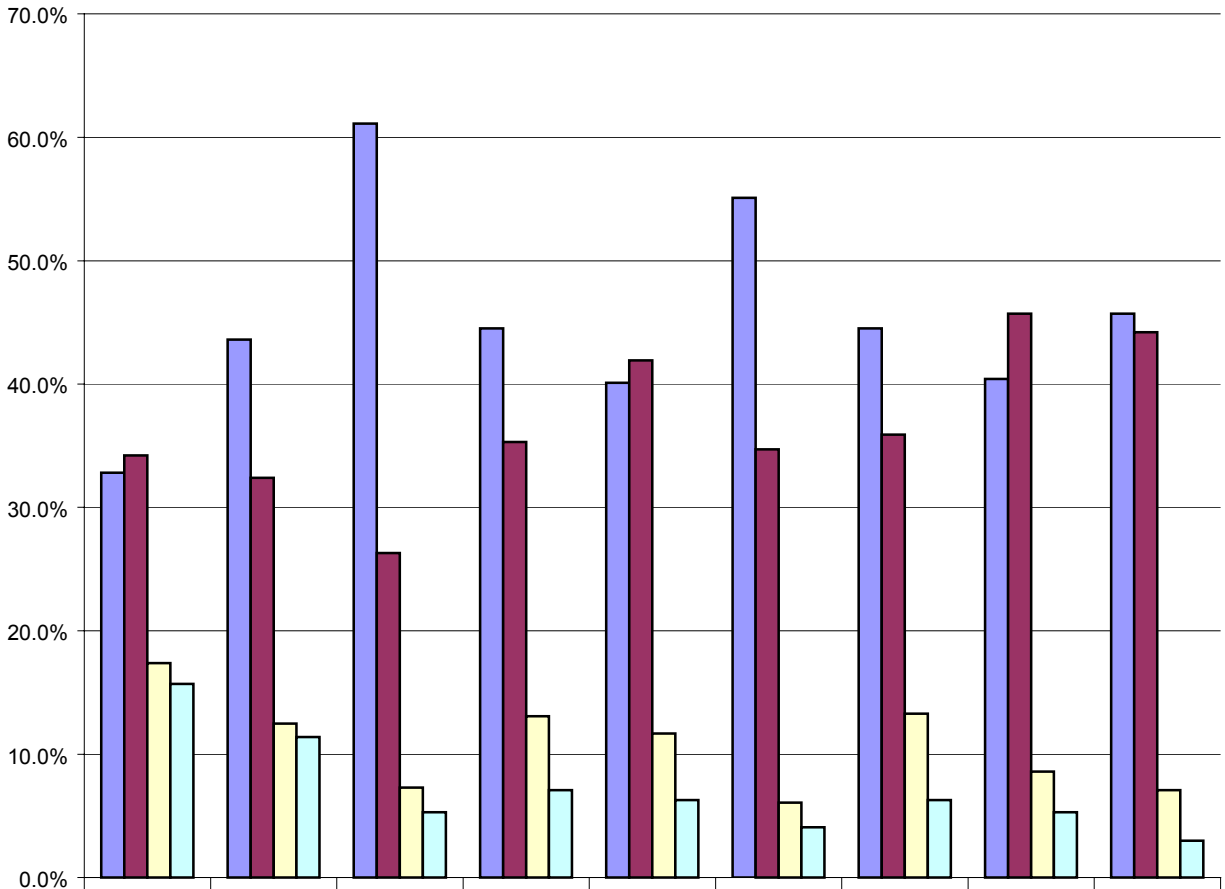
Emission Reduction Strategy	Rank Score
Prohibit heavy duty vehicle idling.	1.6
Require gas stations to recover vapors.	1.6
Require auto shops to use cleaner refinishing products and techniques.	1.7

Require commercial lawn and garden companies to submit a plan to reduce their emissions by 20% as a condition of certification.	1.8
Adopt rules to regulate degreasing processes used in machine repair and some manufacturing processes	1.8
Mandate the exclusive sale of low-emission gas cans at area retailers.	1.8
Bring cleaner fuels into the area to reduce emissions.	1.8
Require that businesses with 100 or more employees to reduce employee commutes by 10% through commute reduction programs.	1.9
Require emissions tests for cars registered in Hays, Travis and Williamson Counties.	2.2

Rank Score Scale 1=Very Acceptable 2=Acceptable 3=Unacceptable 4=Very Unacceptable

In general, most participants reported that all the measures were either "Very Acceptable" or "Acceptable."

Still, it is important to note that; overall, participants felt that **all** of the strategies were acceptable (either "Very Acceptable" or "Acceptable"). This is best observed in the Figure on the following page.

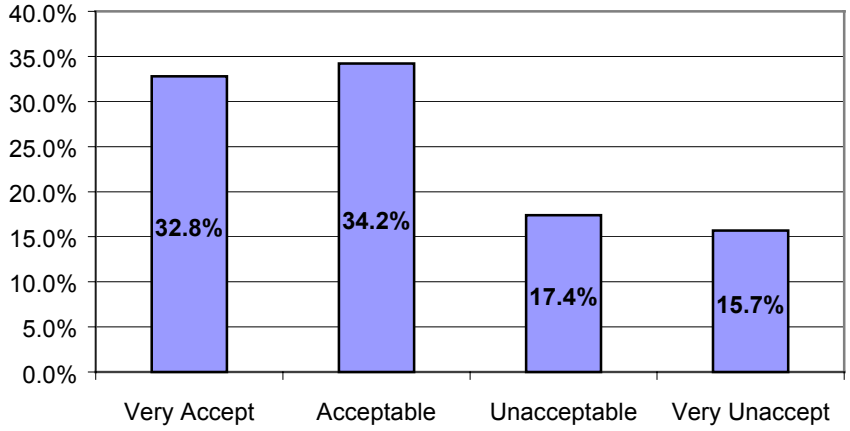


	Emissions Testing	Commuter Reduction	Heavy Duty Idling	Lawn and Garden Plan	Cleaner Fuels	Recover Vapors	Low emission Gas Cans	Regulate Degreasing Processes	Use Cleaner Refinishing Prod.
Very Acceptable	32.8%	43.6%	61.1%	44.5%	40.1%	55.1%	44.5%	40.4%	45.7%
Acceptable	34.2%	32.4%	26.3%	35.3%	41.9%	34.7%	35.9%	45.7%	44.2%
Unacceptable	17.4%	12.5%	7.3%	13.1%	11.7%	6.1%	13.3%	8.6%	7.1%
Very Unacceptable	15.7%	11.4%	5.3%	7.1%	6.3%	4.1%	6.3%	5.3%	3.0%

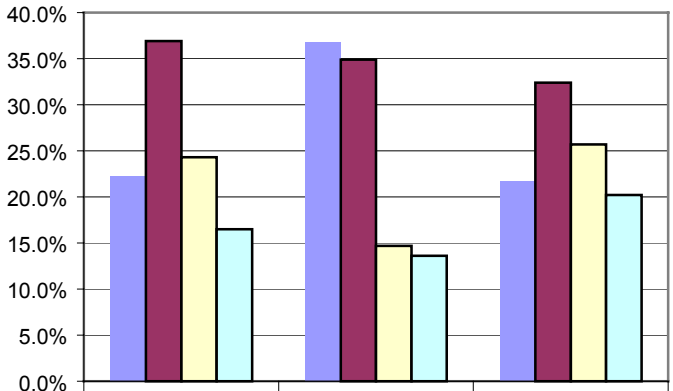
Respondents voiced somewhat stronger concern regarding the acceptability of some measures. These included Emissions Testing, Commuter Reduction Programs, Lawn and Garden Plan and Low Emission Gas Can measures, with 33.1%, 23.9%, 20.2%, and 19.60% reporting that these measures were “Unacceptable” or “Very Unacceptable.”

Even though "Require emissions tests for cars registered in Hays, Travis and Williamson counties" was the measure ranked the lowest (2.2), the majority still find it acceptable. One-third of all respondents (32.8%) found the measure "Very Acceptable" while another third (34.2%) found it "Acceptable."

The majority of participants found the measure, "require emissions tests for cars registered in Hays, Travis and Williamson county" as acceptable. Approximately one-third of all participants found the measure "Very Acceptable" (32.8%), "Acceptable" (34.2%), or "Unacceptable/Very Unacceptable (33.1%).



Of the participants residing in the counties affected by this measure, Travis county citizens were more likely to find this measure "Acceptable/Very Acceptable" (71.7%). Though their levels of acceptability were not as strong, more than half of participating citizens in Hays and Williamson counties found this measure to be "Acceptable/Very Acceptable" (59.2% and 54% respectively).



	Hays	Travis	Williamson
Very Accept	22.3%	36.8%	21.7%
Acceptable	36.9%	34.9%	32.4%
Unacceptable	24.3%	14.7%	25.7%
Very Unaccept	16.5%	13.6%	20.2%

Of all the comments received, the topic most commented (17.3%) on was emissions testing. The following reflects the range of comments and questions poised by respondents:

"I believe mandatory vehicle emissions testing should be starting ASAP in Central Texas. The same tests are required in Dallas-Fort Worth and Houston-Galveston and the public has generally embraced the program."—Travis county

"[The] vehicle test is so necessary. This state is decades behind on air quality." –Bastrop county

"The only thing I disagree with in number one, emissions testing, is that money should NOT be made available for low income vehicle owners. The point of this program is to encourage consumers to buy good running vehicles no matter what age, and to maintain them."—Travis County

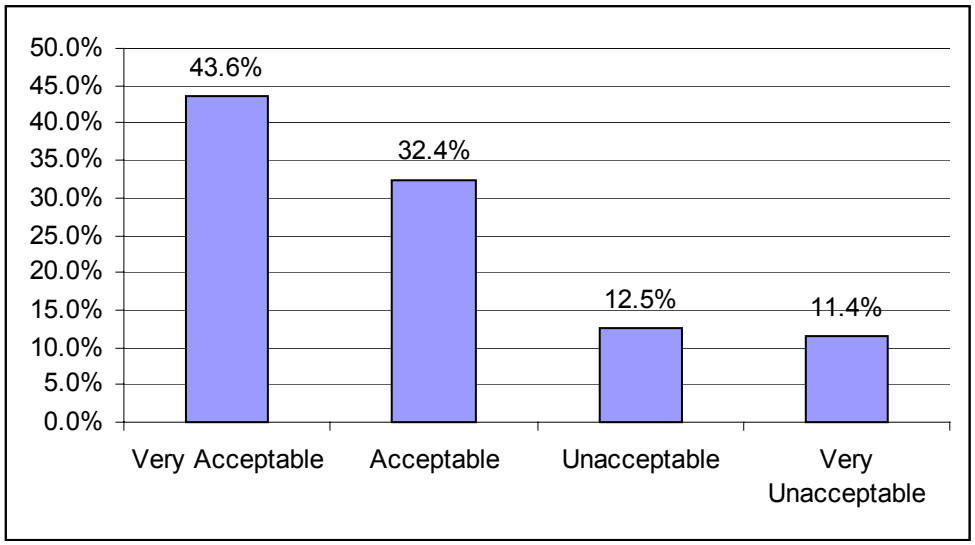
"Emission tests for cars have not reduced the air quality problem in the Metro Plex (Dallas). Emission tests are another tax that does not solve the problem. The Plan is very unacceptable costly non solution."—Bastrop County

"The mandate of emissions testing is wholly unacceptable. The cost of introducing testing equipment, the hidden tax on all owners of vehicles (the fee to get the test is a tax if it is required to drive), and the inconvenience is unnecessary."—Williamson County

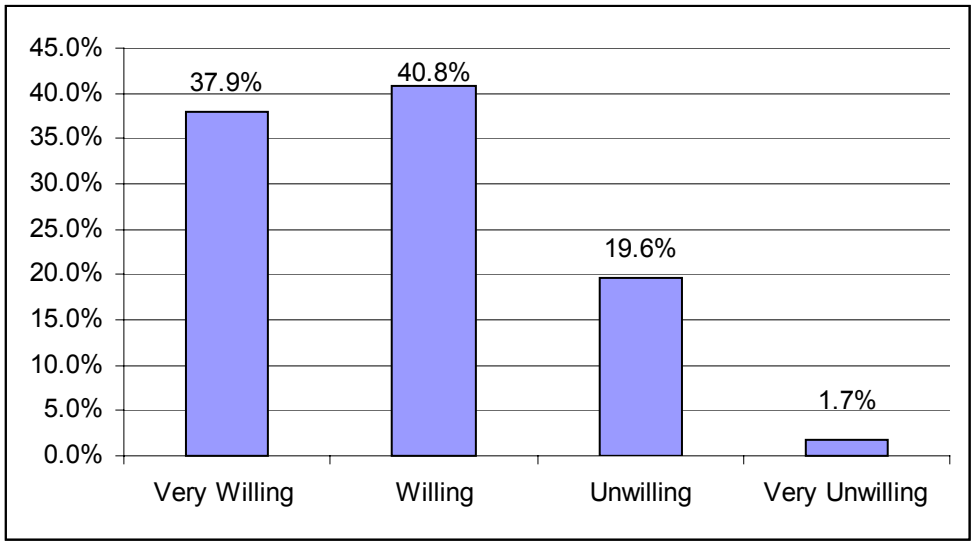
'I do not support subsidizing only low-income driver's repairs. This is a band-aid to cover up a significant problem. I would support a plan that reduced the costs of emissions related repairs for everyone."—Williamson county

Over three-fourths of participants (76%) feel that requiring businesses with 100 or more employees to reduce employee commutes through commute reduction programs is an "Acceptable or Very Acceptable" measure. Slightly more would be equally willing to participate in commute reduction programs if offered by their employers.

As shown below, four out of ten respondents (43.6%) felt that requiring businesses to reduce employee commute by 10% through commuter reduction programs was a "Very Acceptable" measure while another one-third (32.4%) felt it an "Acceptable" measure.



Most participants reported being "Very Willing" (37.9%) or "Willing"(40.8%) to participate in commute reduction programs if they were offered through their employer.



Few participants raised concerns (most dealing with the costs associated with enforcement of this measure and the burden on small businesses or businesses located in rural areas). Most voiced support for this measure, while several respondents also provided constructive comments:

- Encourage employers (both public and private) to provide secure bicycle parking for employees cycling to work.
- Encourage employers (both public and private) to add bonus to pay for alternate transport
- Promote work-at-home programs for reliable employees. Reliability can be determined by productivity. If work-at-home employees are paid the same salary, then they can use the money saved for not having to commute to upgrade their home equipment.
- Take into consideration the types and locations of businesses that can vanpool etc. Many businesses are not convenient to bus routes. Please address bus routes as well among it easier to access
- Require businesses to make a company car available for mothers/parents who carpool so that they can pick up their kids when emergencies arise.
- Work with government and other major employers to initiate free or company subsidized annual/monthly transit pass or vanpool program in lieu of free parking provided by employer. State of Texas, U.T., City of Austin, and IRS should lead by example.
- Require non-transit supporting municipalities to spend a set portion of the community improvement tax money toward carpooling sources, Para transit and shuttle services, bike trails, pedestrian trails etc. and to incorporate a Para transit, shuttle, and transit route.
- Many of the real problems are Federal, like not upping the required gasoline mileage. However, the other things that can be done, like car-pooling, better bus service, light rail, etc would all help keep the pollution from increasing.
- Require every company receiving state funds and all state agencies/local governments to allow telecommuting. Targets for participation should be established and funding penalties enforced if the companies and government agencies do meet those

Others provided examples of successful application of commute reduction programs by their company or others:

- In the past year, my employer instituted an off site parking facility located approximately 3.5 miles from our facility. The persons required to park there are shuttled back and forth via shuttle busses making numerous trips. [Seton-Brackenridge Hospital]

- My employer currently has a telecommuting policy and a vanpooling program in place. I have been telecommuting from home on an average of three days a week for the past 17 months. I usually ride my bike to work on my in office days. [University of Texas]
- California has had a four-day work week (10 hours per day) in place for sometime now. They were put into the situation to make something happen NOW, or face the reality of the Government cutting their funds for highways, repair, etc.
- Programs such as those listed in question 2a [commute reduction programs] are already in use at my workplace, with great success. It would seem many other local employers could implement these same programs with little disruption or cost to their business. [TCEQ]

ATTACHMENT A: Survey Instrument

For the following responses, after each question, please tell us whether you think each measure is an acceptable way of reducing air pollution.

1. Require emissions tests for cars registered in Hays, Travis and Williamson counties. Such a program would add $15 - $30 to annual safety inspection fees and would require repair and retesting for vehicles that fail. Money would be available to help low-income drivers make needed repairs.
   Very Acceptable Acceptable Unacceptable Very Unacceptable

2. a. Require businesses with 100 or more employees to reduce employee commutes by 10% through programs that promote vanpools, carpools, telework, mass transit, biking, walking or alternative work schedules OR reduce other business related air pollution emissions by an equal amount.
   Very Acceptable Acceptable Unacceptable Very Unacceptable

   b. If your employer had a commute reduction program, would you be willing to participate?
   Very Willing Willing Unwilling Very Unwilling

3. Prohibit heavy-duty vehicles (buses, delivery trucks, 18-wheelers) from idling the engine longer than 5 minutes when not in traffic or waiting for passengers.
   Very Acceptable Acceptable Unacceptable Very Unacceptable

4. Require commercial lawn and garden companies to submit a plan to reduce their emissions by 20% as a condition of certification.
   Very Acceptable Acceptable Unacceptable Very Unacceptable

5. Bring cleaner fuels into the area to reduce emissions. Cleaner fuels may increase fuel costs for fleet owners and individual drivers.
   Very Acceptable Acceptable Unacceptable Very Unacceptable

6. a. Require gas stations to recover vapors from underground storage tanks.
   Very Acceptable Acceptable Unacceptable Very Unacceptable

   b. Mandate the exclusive sale of low-emission gas cans at area retailers.
   Very Acceptable Acceptable Unacceptable Very Unacceptable

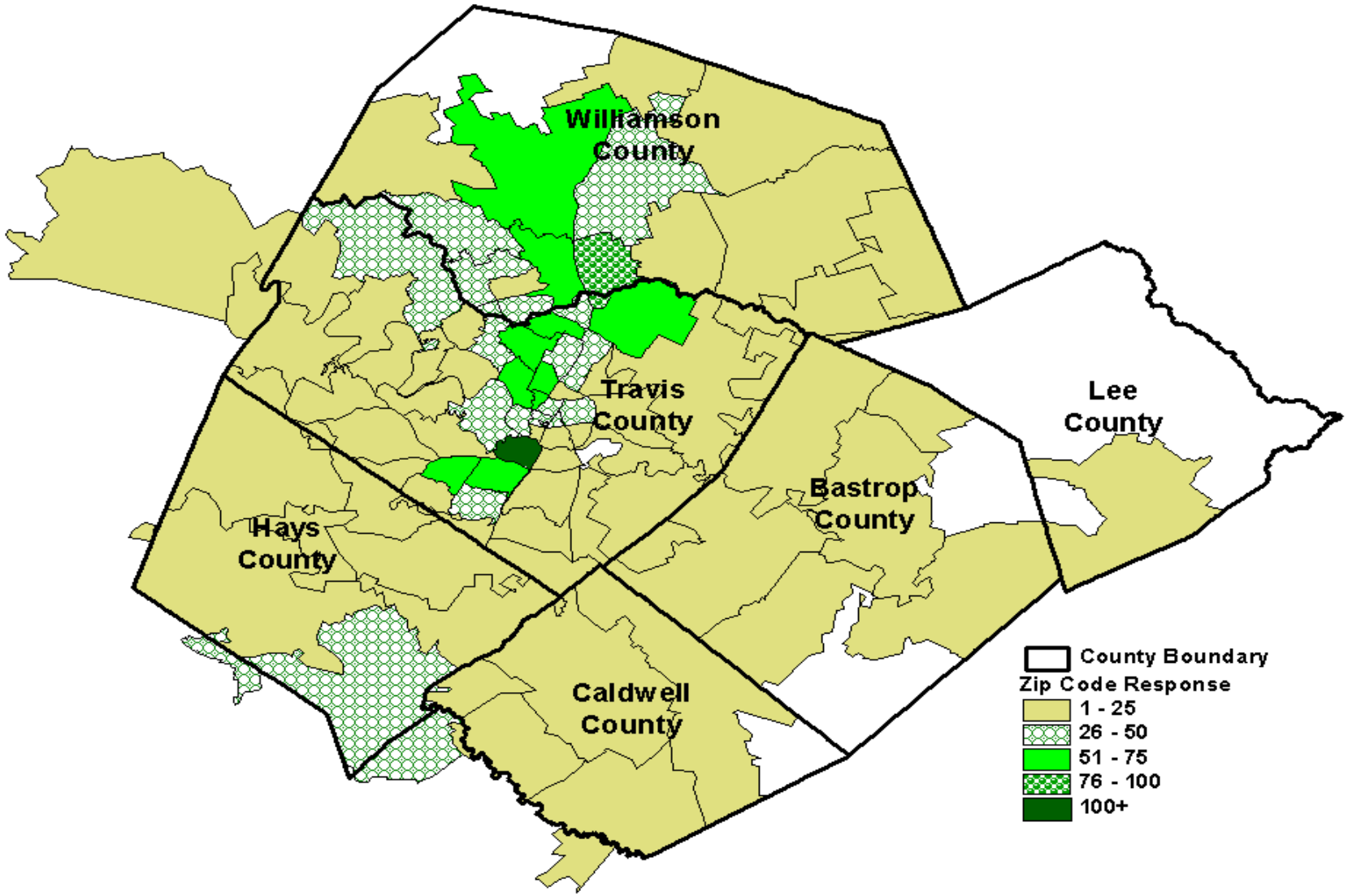
7. Adopt rules to regulate surface coatings and degreasing processes. This would restrict some household paints, but would mostly affect auto shops and similar businesses.
   Very Acceptable Acceptable Unacceptable Very Unacceptable

8. Require auto shops to use cleaner refinishing products and techniques.
   Very Acceptable Acceptable Unacceptable Very Unacceptable

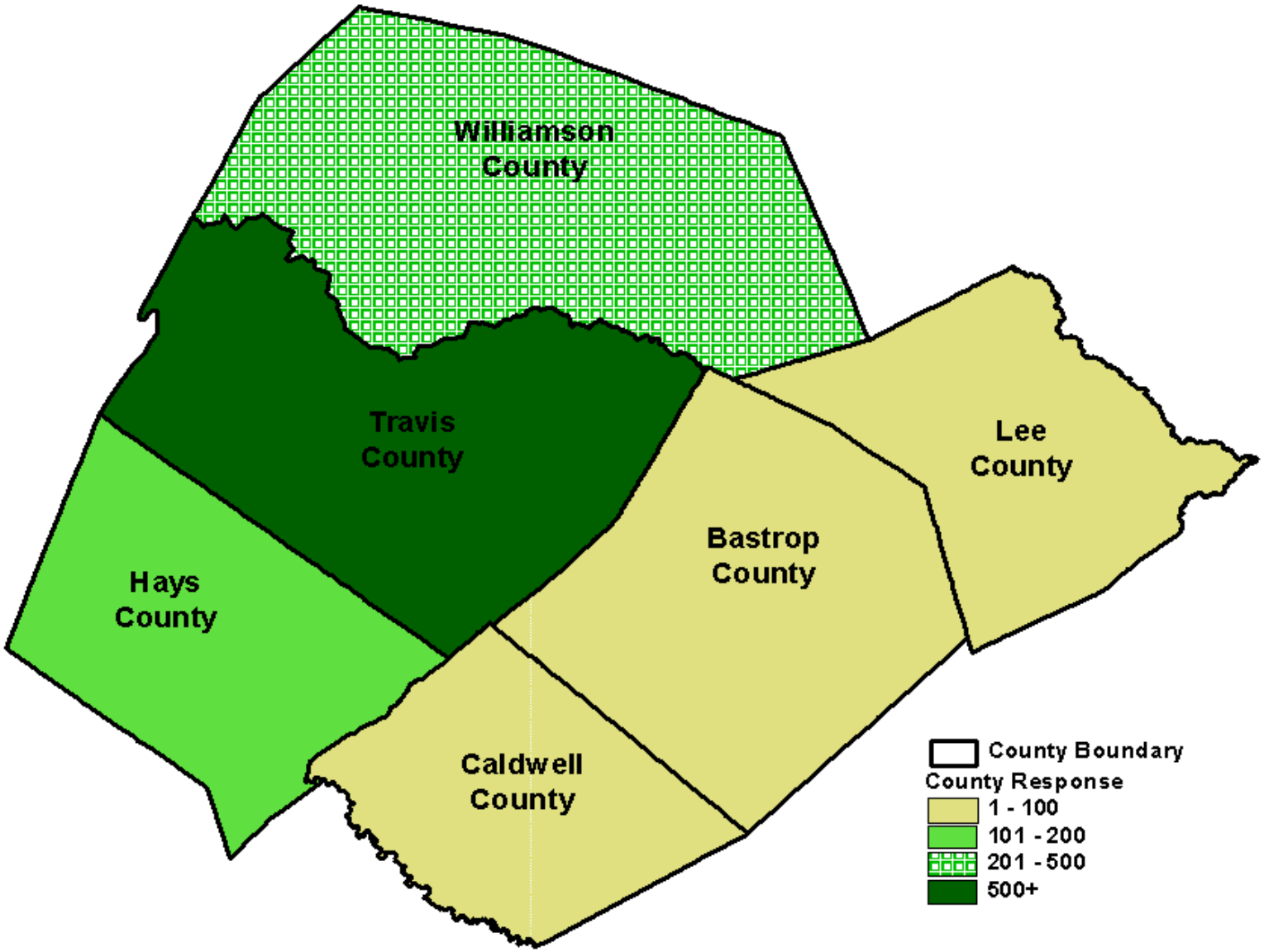
Please share any other comments or ideas:_____

Attachment B: Maps of Study Participation by County and Zip Code

CAF Early Action Compact Survey Response by Zip Code



CAF Early Action Compact Survey Response by County



ATTACHMENT C: Alphabetical List of Employers

3 WAY PRODUCTIONS
3M
ACC
ACS, INC.
ACTIVANT
ADVANCED MICRO DEVICES
AIR QUALITY SOLUTIONS
AISD
AMERICAN CANCER SOCIETY
ANALOG DEVICES INC.
APPLE COMPUTER
APPLE ONE EMPLOYMENT AGENCY
APPLE, INC.
APPLIED MATERIALS
APS
ARC SYSTEMS
AST
ATHEN GROUP, INC.
ATTORNEY GENERAL OF TEXAS
AUSTIN CANCER CENTERS
AUSTIN CHAMBER OF COMMERCE
AUSTIN COMMUNITY COLLEGE
AUSTIN ENERGY
AUSTIN HUMANE SOCIETY
AUSTIN IDEA NETWORK
AUSTIN ISD
AUSTIN MARRIOTT NORTH AT ROUND ROCK
AUSTIN MEDICAL EDUCATION PROGRAMS
AUSTIN POLICE DEPT
AUSTIN/TRAVIS COUNTY EMS (STAR FLIGHT)
AUTOZONE
AZUMA LEASING
BAER ENGINEERING
BAKER-AICKLEN AND ASSOC.
BAKER BOTTS, LLP
BANK OF AMERICA
BARNES AND NOBLE
BASTROP ISD
BLUEBONNET TRAILS COMMUNITY MHMR CENTER
BLUES RUNNER TRKG
BMC SOFTWARE
BRACKENRIDGE HOSPITAL/ SETON HEALTHCARE NETWORK
BROADWING COMMUNICATIONS
BUILD-A-BEAR WORKSHOP
CAMPO
CAPITAL AREA PLANNING COUNCIL
CAPITOL METRO
CASTEEL FIRE PROTECTION
CAVCO HOME CENTER
CDM
CENTRAL MARKET
CENTRAL TEXAS FINANCIAL GROUP
CENTRAL TEXAS TRANSMISSION PARTS
CFT DISPENSERS
CHAMPION CHEVROLET/JEEP

CHESTNUT HILL FENCE
CHILDREN'S HOSPITAL OF AUSTIN
CHOICEPOINT
CIBER CORP
CINGULAR WIRELESS
CISCO SYSTEMS INC.
CITY OF AUSTIN
CITY OF BASTROP
CITY OF CEDAR PARK
CITY OF GEORGETOWN
CITY OF LEANDER
CITY OF LOCKHART
CITY OF ROUND ROCK
CITY OF SAN MARCOS
CLEAN AIR FORCE OF CENTRAL TEXAS
COLOR SALON
COLVIN ELECTRIC
COMMEMORATIVE BRANDS INC.
COMMUNITY MOBILITY INSTITUTE, INC
COMPUTER SCIENCES CORP
CR SOLUTIONS
CRAFTCORPS
CRICHTON AND ASSOCIATES, INC.
CROWTHER AND ASSOCIATES, INC.
CRUMP INSURANCE
CSC
DATASOURCE
DELL
DELL FINANCIAL SERVICES
DELSTAR TECHNOLOGIES
DEMARCO ENERGY SYSTEMS
DOWNTOWN AUSTIN ALLIANCE
DRESSER-WAYNE
DREWE BROWNING STRICKLER
E-MDS, INC.
ELECTRIC POWER ENGINEERS, INC.
EMERGENCY SERVICE PARTNERS
EMPOWERMENT OPTION
ENCORE PRODUCTIONS
ENGINEER
ENVIROMEDIA
ENVIRONMENTAL DEFENSE
ENVISION CENTRAL TEXAS
ESTATE OF CARL C. ANDERSON, SR.
EVERGREEN GLOBAL GROUP
EVOLUTIONAL TECHNOLOGIES INTERNATIONAL, INC.
EXTEND-A-CARE
FAA
FARMERS INSURANCE GROUP
FASL, LLC
FAST PARTS INC
FEDERAL GOVT—NO AGENCY SPECIFIED
FEDERAL HIGHWAY ADMINISTRATION
FEDEX
FLORENCE ISD
FRDS, INC.
FREESE AND NICHOLS, INC.
FTWOODS CONSTRUCTION CO.

GEO-SOLUTIONS, INC.
GEORGETOWN ISD
GERONIMO CREEK OBSERVATORY (SELF)
GISD
GOOD CO ASSOCIATES
GRANDE COMMUNICATIONS
HANDY STAN
HARTE-HANKS
HEALTH SOUTH
HEYCISTER! CONSULTING
HNTB CORPORATION
HOME-EDUCATOR
HOMEMAKER
HOUSTON CHRONICLE AUSTIN BUREAU
HP
HSB
IBM
IMPERIAL VALLEY NA
INFOEDGE TECHNOLOGY
INSURE-A-KID (SETON)
INTELLIGENT COMMUTER SOLUTIONS
INTERNAL REVENUE SERVICE
INTOWN SUITES - LMR
IRIE ENTERPRISES INC
JCPENNEY
JD CONSULTING
KATZ BUILDERS, INC.
KELLER WILLLIAMS REALTY
KINKO'S
KRISTY OZMUN PUBLIC RELATIONS
KXAN TV
LA,BERTS
LAN
LAW OFFICES OF RICHARD J. WIELAND
LCRA
LEANDER ISD
LIN TELEVISION
LOWER COLORADO RIVER AUTHORITY
M. D. ANDERSON CANCER CENTER
MAGNOLIA CAFE
MANGIA PIZZA
MC DONALDS
MISYS HEALTHCARE SYSTEMS
MONEY BOX
MOTOROLA
MUNICIPALITY
MYKROLIS CORP.
NATIONAL INSTRUMENTS
NATIONAL LATINO CHILDREN'S INSTITUTE
NET INGENUITY
NETQOS
NEW CREATION MASSAGE
NEWMARK
NEWS 8 AUSTIN
NEXTEL COMMUNICATIONS
NON-PROFIT
OFFICE OF THE ATTORNEY GENERAL
OFFICE TEAM

OMNI HOTEL SOUTH
OPTICAL DISTRIBUTOR GROUP
OPUS HEALTHCARE SOLUTIONS
PARADIGM METALS, INC.
PBSJ
PERKINS ENGINEERING INC.
PERVASIVE SOFTWARE
PETROFERM INC
PRIME MEDICAL SERVICES INC
PRINCE ENVIRONMENTAL
PROGRESSIVE INSURANCE
PSI
QEA
QUADRALAY CORPORATION
RAILROAD COMMISSION OF TEXAS
RANKIN COMPUTING
REALVUE SIMULATIONS TECHNOLOGIES
REBEKAH BAINES JOHNSON CENTER
RENEWABLE ENERGY SYSTEMS (USA) INC.
RETIRED/SELF-EMPLOYED
REXEL SUMMERS
ROCK BUSTERS
ROCKFORD BUSINESS INTERIORS
ROUND ROCK POLICE DEPARTMENT
RRISD
RTC
SALES
SAMSUNG AUSTIN SEMICONDUCTOR
SAN MARCOS RIVER FOUNDATION
SANDALWOOD MANAGEMENT, INC.
SANMINA-SCI CORPORATION
SEDL
SEMATECH
SEMI-RETIRED/CIVIL ENGINEER
SENIOR ADULT SPECIALTY HEALTHCARE
SETON
SHESHUNOFF INFORMATION SERVICES
SILICON LABORATORIES
SMC
SMITHVILLE ISD
SOLECTRON
SOUTHWEST AIRLINES
SOUTHWESTERN UNIVERSITY
SPRINT
SRI SPORTS, INC.
ST FRANCIS SCHOOL
ST. DAVID'S HEALTH CARE SYSTEM
ST. EDWARD'S UNIVERSITY
STARWOOD HOTELS AND RESORTS
STATE
STATE AGENCY
STATE COMPTROLLER OF PUBLIC ACCOUNTS
STATE FARM INSURANCE
STATE GOVERNMENT
STATE OF TEXAS-TDHS
STATE OF TEXAS--Unspecified
STATE OF TEXAS TCEQ
STATE PRESERVATION BOARD

STATEFARM INSURANCE
STONE TECHNOLOGIES CORP
STRUCTURES
STUDENT
SUN MICROSYSTEMS
SWANK-SALUS INSTITUTE, INC.
SWEEP ACROSS TEXAS
T.A. BROWN EL.
T.C.S.O.
TALENT TREE TEMPORARIES @ ACS INC.
TASB
TAURUS PET SERVICES
TAYLOR ISD
TC AND B
TCB
TCE
TCEQ
TCSO
TDH
TDMHMR
TECOM INC
TEK SYSTEMS
TEN X TECHNOLOGY, INC.
TEXANA MACHINERY
TEXAS ASSOCIATION OF APPRAISAL DISTRICTS
TEXAS ASSOCIATION OF COUNTIES
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY(TCEQ)
TEXAS DEPARTMENT OF TRANSPORTATION
TEXAS GAS SERVICE
TEXAS GENERAL LAND OFFICE
TEXAS HIGHER EDUCATION COORDINATING BOARD
TEXAS LEGISLATIVE COUNCIL
TEXAS MEMORIAL MUSEUM AT UT AUSTIN
TEXAS PARKS AND WILDLIFE DEPARTMENT
TEXAS PUC
TEXAS REHABILITATION COMMISSION
TEXAS SENATE
TEXAS STATE ENERGY CONSERVATION OFFICE
TEXAS STATE UNIVERSITY
TEXAS TRANSPORTATION INSTITUTE
TEXAS WORKERS' COMPENSATION COMMISSION
THE 401(K) COMPANY
THE BLIND MAKER
THE ENTERPRISE FOUNDATION
THE ROCK UNITED METHODIST CHURCH
THE RUSK LAW FIRM, P.C.
THE STATE OF TEXAS
THE UNIVERSITY OF TEXAS / APPLIED RESEARCH LAB
THOMSON MEDIA
TOUDOUZE, INC.
TRADEMARK MEDIA
TRANSCAT
TRANSCENDENT CONSULTANTS
TRAVIS CO. CONST. PCT 2
TRAVIS COUNTY
TRAVIS COUNTY ATTORNEY'S OFFICE
TRAVIS COUNTY CSCD
TRAVIS COUNTY HEALTH HUMAN SERVICES VETERANS

TRAVIS COUNTY HOUSING
TRAVIS COUNTY ITS
TRAVIS COUNTY RECORDS MANAGEMENT
TRAVIS COUNTY SHERIFF'S OFFICE
TRAVIS COUNTY TAX OFFICE
TRAVIS COUNTY TNR
TRIBEZA
TRUSTED NETWORK TECHNOLOGIES
TURNER, COLLIE AND BRADEN INC
TWANG INC
TX ASSOC OF SCHOOL BOARDS
U.S. GEOLOGICAL SURVEY
U.S.P.S
UNEMPLOYED
UNIVERSITY OF TEXAS AT AUSTIN
UNLIMITED POWERSPORTS, INC.
URBAN DESIGN GROUP
URS
USN
UT M. D. ANDERSON CANCER CENTER, SMITHVILLE, TX
VIGNETTE CORPORATION
VOLUNTEER
WALDRIP INSURANCE
WALGREENS
WAYPORT, INC.
WC-CSCD
WELLS FARGO BANK
WHOLE EARTH PROVISION CO.
WHOLE FOODS MARKET, INC.
WIC BREASTFEEDING COUNSELOR
WILLIAMSON COUNTY
WILLIAMSON COUNTY ATTORNEY
WILLIAMSON COUNTY AUDIT
WILLIAMSON COUNTY CSCD
WILLIAMSON COUNTY EMS
WILLIAMSON COUNTY JUVENILE SERVICES
WILLIAMSON COUNTY SHERIFF'S OFFICE
WILLIAMSON COUNTY TAX ASSESSOR
WILLIAMSON CTY AND CITIES HEALTH DISTRICT
WOOD, JOHNSON, HEATH, PC
WORD OF MOUTH CATERING
WORK AT HOME
WW GLOBAL LOGISTICS INC.
XEROX
ZEPHYR ENVIRONMENTAL CORP

EAC/CAAP Comments Tracking Spreadsheet

Updated: November 20, 2003

The following information is a summary of written comments received to date. These comments have been received in addition to feedback received from ongoing public involvement efforts, such as survey cards and stakeholder meetings.

	FROM	DATE	SUMMARY OF COMMENT	HOW WE ADDRESSED COMMENT	RECOMMENDED ACTION
1	**Amy Johnson MoPac Boulevard Alliance.**	May 29, 2003	Would like us to consider an emissions offsets program to ensure no net increase of emissions from new roadways in the region.	Invited Ms. Johnson to talk to on-road mobile stakeholder group. They suggested she draft language.	Recommendation: Do not add measure to list since the suggested modeling is already being done on a transportation system level and the measure will only result in no net increase of emissions, not emission reductions. Additionally, the EAC Protocol requires the CAAP to include a Maintenance for Growth analysis through 2012 as well as a detailed Continuing Planning Process. The goal of the suggested measure will be addressed by the CAAP components that comply with these requirements. Add text to the CAAP explaining: 1) The on-road mobile future emission inventory development process, emphasizing that the inventories include all new regionally-significant roads expected to be operational during the time period reflected by the inventory and that the underlying population and employment assumptions reflect development and induced demand as a result of the new roads. (Cont. on pg. 2)
1a	**Amy Johnson MoPac Boulevard Alliance.**	June 25, 2003	Contained draft language for measure.	Invited larger stakeholder group to discuss and provide comments	
1b	**Alfred Reyes, Texas Nation Guard, Camp Mabry**	June 27, 2003	Disagreed with suggested measure. Argued that it will only increase congestion by slowing down road construction. Emissions offsets might come from light rail system or from a program developed when new roads are built.	Discussed at 7/24 EACTF meeting.	
1c	**Skip Cameron, Bull Creek Foundation**	June 27, 2003	Disagreed with suggested measure. Argued it will only add to congestion to slow down road construction activities	Discussed at 7/24 EACTF meeting.	

1d	**Jeff Jack**	July 2, 2003	Agrees that we must assess the impact of all new roads, so that burden for added emissions do not fall some place else and further off load real costs of transportation system to another economic sector.	Discussed at 7/24 EACTF meeting.	2) Roadways should not be analyzed individually, but should be analyzed as part of the overall transportation system. A new road likely will affect other roads or transportation system components (for example other roads may have lower traffic volumes due to the new road), so an overall system analysis is needed to provide the best estimate of the vehicle emissions associated with new roadways
2	**Association of General Contractors (AGC)**	June 18, 2003	Objects to adding Contractor Health Days measure later in the process (April 13th, 2003) and want measure removed from list. States that Clean Air Act preempts state and local governments from restrictions on nonroad vehicles and engines. Contends that FHWA finds unacceptable air quality incentives in bidding process. States that TTI has completed a study showing technological-based solution are more effective than behavioral strategies such as proposed here.	None. Did not come to EACTF. Letter sent directly to elected officials	Ask AGC to propose an alternative measure that will achieve equivalent emission reductions. Leave measure on the list until an acceptable alternative measure is proposed.
3	**Mr. Lynn R. Weber**	June 20, 2003	OBD testing does not test older and dirtier cars, so serves no useful purpose. Should begin testing cars only after first four years. Should enact and enforce smoking vehicle laws. Should require gas stations to use cleaner fuels.	Discussed at 7/24 EACTF meeting and at on-road mobile stakeholder group 6/20.	Currently, one and two-year old cars are exempt. We do not recommend exempting for an additional two years because the fees collected on those vehicles help fund the Low Income Repair Assistance Program (LIRAP). Comments regarding enforcement of smoking vehicles are noted and we plan to address this significant source of pollution in the CAAP.
4	**Judge H.T. Wright Caldwell County**	June 23, 2003	Would like further consideration of Dr. Robert Habingreither's report that I&M should not be implemented unless all	Discussed at 7/24 EACTF meeting.	Agreed. Further consideration of these issues is necessary.

			5 counties agree to participate. Mentioned several factors that should be considered to present a balanced study.		
5	**Jeff Jack**	July 2, 2003	Focus should be on VMT reductions, not necessarily technological fixes. Disagrees with Dr. Habingreither's suggestion to not test vehicles older than 10 years.	Discussed at 7/24 EACTF meeting.	State currently tests vehicles 2-24 years old and EACTF recommends we maintain those guidelines.
6	**Kevin Tuerff Austin**	August 25, 2003	Supports I&M and restricts on lawn and garden during high ozone days. Suggests better incentives for employers or increase number of minimum employees to 200 for a Trip Reduction program to be successful. Also suggests that all state employees stagger the work starting time on high ozone days.	Distributed to TAC over email, 10/2; CAC meeting 10/15	
7	**Robert Whittaker, Jr Georgetown**	Sep. 6, 2003	Suggests all gasoline in Texas be "reformulated gas" and be required to contain fuel cleaners. Also suggests instead of I&M program, the State should mandate that all motor vehicles comply with State and EPA standards. The cost of this service can be incorporated into the initial cost of the vehicle based on the projected service life of the vehicle.	Distributed to TAC over email, 10/2; CAC meeting 10/15	
8	**Johnny Wolf Wimberly**	Sep. 9, 2003	The following suggestion applies to all vehicles which are 10 years old or less: $1000 per year surcharge with vehicles that get 0-10 MPG, $500 per year for vehicles that get 10-20 MPG, no surcharge for vehicles that get 20-30 MPG, refund of $250 for vehicles that get 30 MPG or above.	Distributed to TAC over email, 10/2; CAC meeting 10/15	
9	**Artie Berne Austin**	Sep. 9, 2003	Promotion of hydrogen fueled cars.	Distributed to TAC over email, 10/2; CAC meeting 10/15	
10	**People Organized in Defense of Earth and her Resources**	Sep. 11, 2003	Recommends school districts adopt policies for ozone action days including an alert flag on campus and not allowing buses to idle motors.	CAC meeting 10/15	

11	**People Organized in Defense of Earth and her Resources**	Sep. 11, 2003	Recommends that the Holly Power Plant be closed. Letter states that it is the largest stationary source of Nox in Travis County and it poses a health hazard to residents living near the plant.	CAC meeting 10/15	
12	**Frank Berezovytch Austin**	Sep. 13, 2003	I&M measures should not be implemented only in Travis County.	Letter sent to City of Austin. Distributed to TAC over email, 10/2; CAC meeting 10/15	
13	**Travis County Libertarian Party**	Nov. 3, 2003	V1 – Strongly opposed to I&M Measures. Supports only remote sensing TS1 – Oppose building bike and pedestrian facilities with air quality funds. Also oppose light rail and HOV lanes. Instead study on congestion pricing of roadways. TR2 – Opposes requiring new commercial buildings to have showers. TR4 – Suggests charging public employees $5/day for parking; $25/day on high ozone days. C1-C4 – Supports TxLED for all off road and diesels, at least during summer. Supports mandating TxLED in all public construction projects. (cont.) D1 & S1A – suggests these measures be voluntary. E5 – Strongly opposes tree planting. Some trees emit VOC's and people should be allowed to plant or remove at will on their property. Suggests a public education initiative of horticultural practices that are good for	Fax sent to CAF. Comments also received at Travis County public meeting 11/15	

			air quality. P – More power plants to the East or Southeast of Austin should be prohibited. P1 – Existing point sources that lack modern emission controls should be required to upgrade within 5 years. No new point sources to the East or South of Austin.		
14	**Amy Johnson, Mopac Blvd. Alliance**	Nov. 12, 2003	Gives the following suggestions: Reduce speed limit to 55 mph. Create HOV lanes. Create an air quality surcharge for trucks, SUV's and other vehicles not meeting stringent emission requirements. Create public campaign to educate public about higher emissions from trucks and SUV's. Include "induced traffic" in all models of new roadways. Facilitate Smart Growth in review of CAMPO's road building plan. Local governments and CAMPO should commit to spend 15% of all transportation dollars on bicycle lanes and 5% on sidewalks. Employers with 50 employees or more should have shower facilities. All new buildings within a certain square footage (cont.) should include showers and bike racks and retrofit older buildings. Cities in region should commit to Smart Growth plans and include greenspace commitments.	Letter sent to EAC signatories.	
15	**Verbal Comments received at Public Meeting**	Oct – Nov 2003	Barbara Cilley from Commissioner Daugherty's office would like to see the model before making recommendations on the measuers. Tom Smith, from Public Citizen, recommends our region adopt a universal Green Building program.		

		There were also citizens requesting easier bike access in and around Austin.		
16 Scott Johnson	Nov. 21, 2003	Believes more needs to be done to reduce emissions. Recommends having an implementation plan for measures. For full list of strategies, ideas and comments, contact the Clean Air Force.		

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APPENDIX D

Biannual Update on Modeling and Other Technical Planning Activities in Support of the Austin/Round Rock MSA EAC Clean Air Action Plan (December 2003)

Air Quality Monitoring for 2003 Ozone Season in the Austin/Round Rock MSA

- In addition to the two regulatory ozone monitors operated in the Austin area by TCEQ, three additional ozone monitors were operated during the 2003 ozone season under contract to CAPCO to provide supplemental area-wide coverage. Data from all three sites can be accessed on-line from TCEQ's Monitoring Operations Web Site. Measurements above the 8-hour ozone standard of 85ppb were made on three days at the supplemental monitors during the 2003 season, the highest being at the Pflugerville monitor of 96ppb on May 30th and the second highest at the background monitor in Fayette County of 92 ppb on September 16th. Data from these sites will be considered in future updates of the area's conceptual model, as well as in performance evaluations of photochemical modeling. A final report of 2003 ozone season monitoring will be available in early 2004.

Air Quality Modeling for the Clean Air Action Plan

Emissions Inventory Activities

- The Austin area 1999 emissions inventory (EI) for the model base case has been enhanced and processed for input into the CAMx Model. The enhancements include modifying the on-road mobile emissions with results from the EPA's MOBILE6 model and updated vehicle miles of travel (VMT) mix by vehicle category. Non-road mobile emissions have been updated by running the latest version of EPA's NONROAD model. Area source emissions have been reviewed and modified to make them more accurate. Documentation for the 1999 EI was submitted 11/30/2003 as an EAC milestone commitment.

- An EI for 2007 was prepared for the Austin area and this has been processed for input into the CAMx Model. On-road mobile emissions were projected by the Texas Transportation Institute (TTI) for 2007 with the MOBILE6 model in conjunction with VMT projected by the area's travel demand model. Non-road emissions were projected by running the NONROAD Model for 2007. Area source emissions were grown from the 1999 EI using either population projections or economic growth indicators from the REMI model. Point source emissions were projected with data submitted by EGU operators or provided by the TCEQ. Documentation on 2007 EI preparation is being submitted as a 12/31/2003 milestone commitment.

Modeling Activities

- Subsequent to installing the refined MM5 meteorological files, a large number of diagnostic sensitivity model runs were made with CAMx to evaluate the impact of the boundary and initial conditions on model performance for the 1999 episode. This included evaluation of model performance at background monitoring sites located in the 12 km and 36 km parts of the modeling domain. The final base case was developed with the boundary conditions used by TCEQ for their regional modeling preformed for the state implementation plans for the Houston/Galveston area. Further diagnostic model runs indicated that in Texas it would be appropriate to use drought conditions for the deposition algorithms.

- Using the 1999 local EI data along with the emissions data developed by TCEQ for the remainder of the modeling domain, the base case for the September 1999 episode was run with CAMx by the University of Texas modeling group. Model performance for both the 1-hour and 8-hour predicted ozone concentrations was evaluated based on the seven monitors in the Central Texas area. Statistical metrics evaluated in conjunction with EPA model performance criteria indicated that the modeled data falls within the bounds of acceptable performance.

Documentation of the September 1999 episode modeling was provided as an EAC milestone commitment on November 30, 2003.

- An analysis was performed by The University of Texas modeling staff of the ozone monitoring data for the past six years to determine what the most likely 2004 design value might be. While that analysis predicted that it is likely the 8-hour design value will not exceed 87 ppb in 2004 (it is 84 ppb for 2003), it was recognized that the 1999 design value of 89 ppb would be required by EPA guidance for use in attainment analysis.

- Model sensitivity runs were made with an early version of the 2007 EI to determine sensitivity to reductions of Nox and/or VOC. These include a matrix of precursor reductions and zero out modeling for Austin and the Houston/Galveston emissions to analyze impacts of local emissions versus transported emissions. Austin zero out modeling for the 1999 episode indicated that Austin emissions in the five-county MSA were responsible for about twenty percent of the ozone measured at local monitors.

- Future base case modeling was performed with the projected 2007 EI from the Austin and San Antonio areas, as well as, the 2007 modeling emissions for the rest of the domain as provided by the TCEQ. The 2007 EI includes emission reductions from adopted federal and state control measures and projected growth. The future case modeling indicates that with a 1999 design value of 89 ppb, the estimated 2007 design value for the Austin area is 84.6 ppb, below the 85 ppb standard. Significant emissions decreases from the on-road mobile category and the electric generating units due to state regulations are thought to be responsible for modeled ozone decreases. Documentation of the 2007 photochemical modeling is being submitted as an EAC milestone commitment for 12/31/2003.

- Preparation for photochemical modeling of selected local emission reduction measures has been initiated with an analysis of the impacted source categories and the spatial and temporal allocations of reductions.

Air Quality Emission Reduction Analysis

- Due to the importance of on-road mobile emissions in the area, vehicle inspection and maintenance program (I&M) evaluation work has been coordinated with a contractor to develop emission reduction estimates and program costs for several different I&M scenarios which may be considered for the Austin area. As program options are refined review has also been coordinated with the TCEQ and DPS to share input data and assumptions to ensure results are useful to all participants. The I&M program currently on the draft list of measures would require OBD for 1996 and newer LDGVs and two-speed idle for the older vehicles.

- Evaluations of the other emission reduction measures on Table 1 have also been conducted by contractor to assist in the development of emission reduction estimates and program costs. Control strategies have been adjusted for both rule effectiveness and rule penetration. Results of this analysis are being translated into photochemical modeling inputs for evaluating impacts on reducing ozone.